

Tenda

User Guide

AX3000 Dual Band Gigabit Wi-Fi 6 Router

RX9 Pro&TX9 Pro



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Preface

Thank you for choosing Tenda! Please read this user guide before you start.



This user guide is applicable to dual-band gigabit WiFi 6 routers RX9 Pro&TX9 Pro.

Conventions

Typographical conventions in this User Guide:

Item	Presentation	Example
Cascading Menus	>	Click Status > Device Status
Parameter and value	Bold	Set User Name to Tom .
UI control	Bold	On the Policy page, click the OK button.
Variable	Italic	Format: <i>XX:XX:XX:XX:XX:XX</i>
Message	“ ”	The “Success” message appears.

Symbols in this User Guide:

Item	Meaning
 NOTE	This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to device.
 TIP	This format is used to highlight a procedure that will save time or resources.

For more documents

If you want to get more documents of the device, visit www.tendacn.com and search for the corresponding product model.

Technical support

Contact us if you need more help. We will be glad to assist you as soon as possible.

Email address: support@tenda.cn

Website: www.tendacn.com

Revision history

Tenda is constantly searching for ways to improve its products and documentation. The following table indicates any changes that might have been made since the router was introduced.

Version	Date	Description
V1.0	2023-09-30	Original publication.

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1 Web UI

1.1 Log in to the web UI

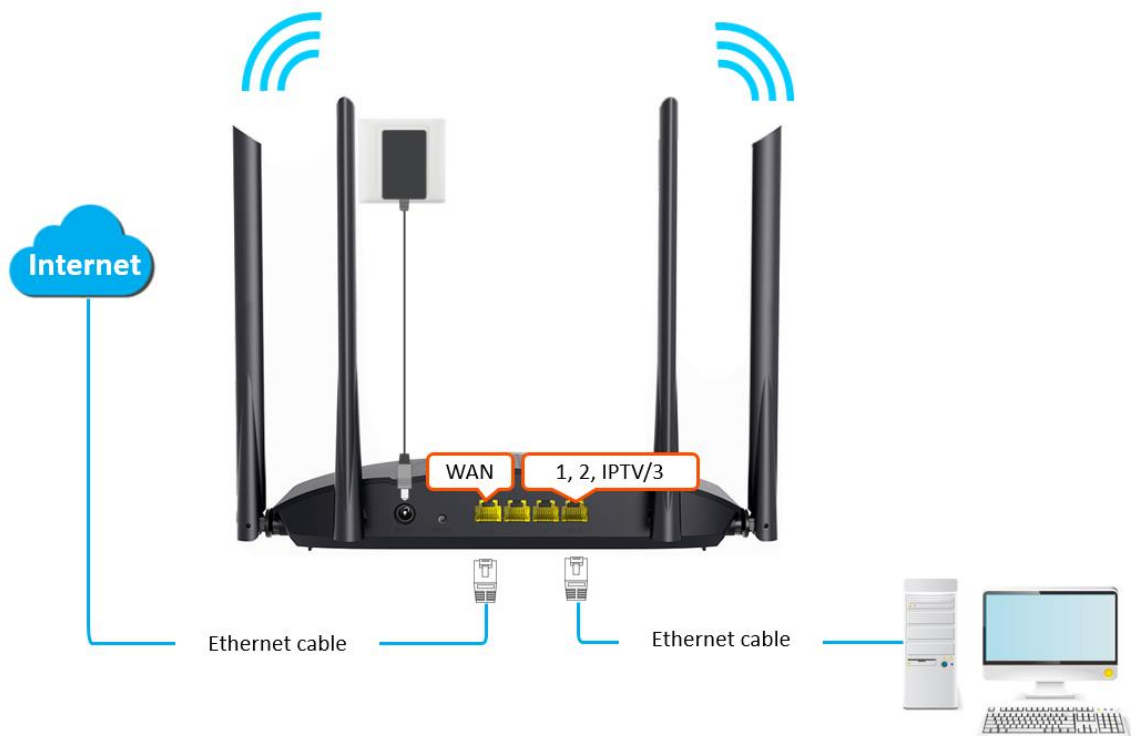
To log in to the web UI, perform the following steps:

Step 1 Use an Ethernet cable to connect your computer to the 1, 2 or IPTV/3 port of the router, or use your smartphone to access the Wi-Fi network of the router.

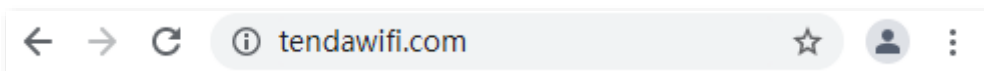
In the following steps, computer connection is used for illustration.



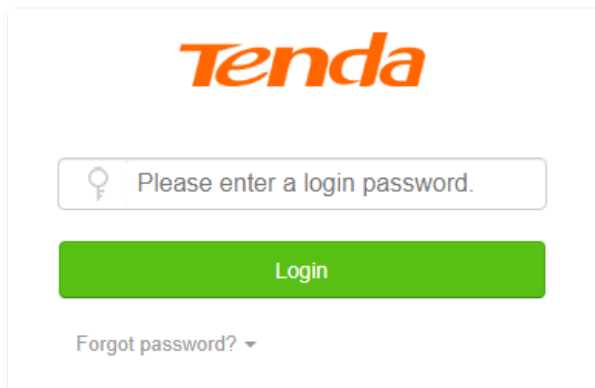
The default Wi-Fi name can be found on the bottom label of the router.



Step 2 Start a web browser on the computer connected to the router and enter **tendawifi.com** in the address bar to access the web UI.



Step 3 Enter the login password, and click **Login**.

The image shows the Tenda login interface. At the top is the Tenda logo in orange. Below it is a text input field with a key icon and the placeholder text "Please enter a login password.". Under the input field is a green button labeled "Login". At the bottom left of the login area is a link that says "Forgot password?" with a downward arrow.

---End

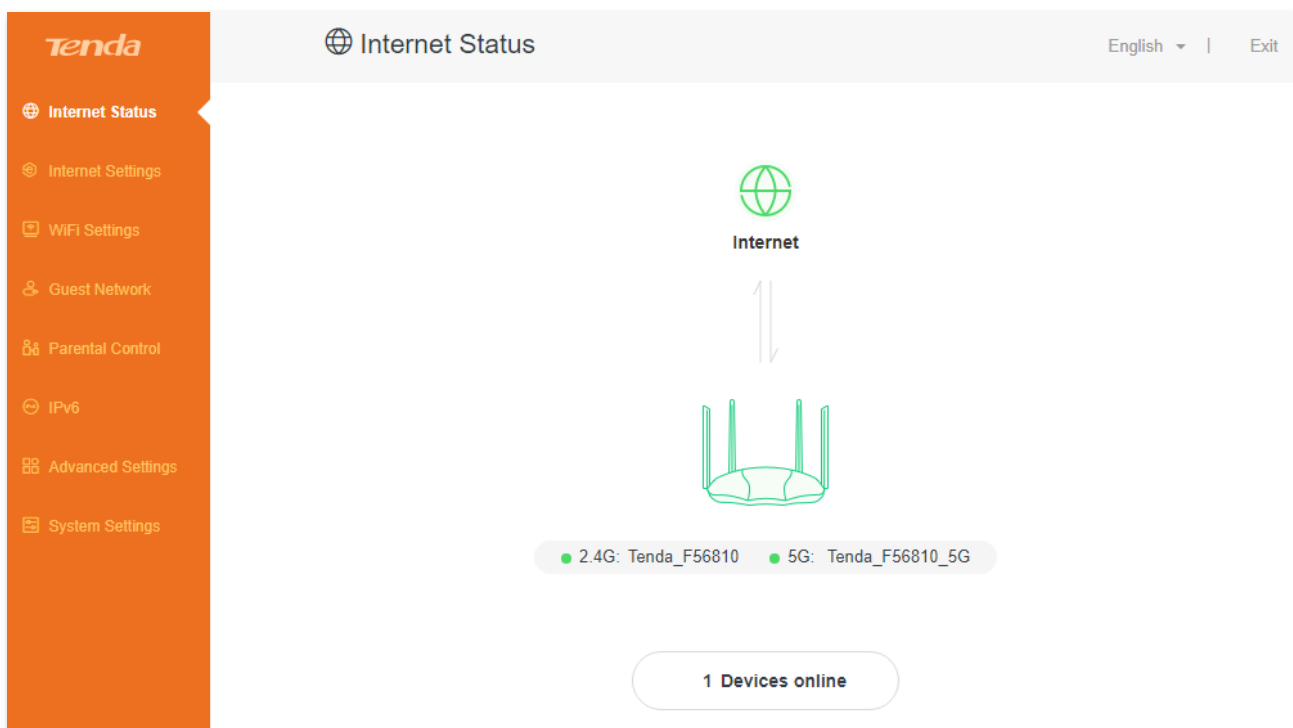


TIP

If the above page does not appear, try the following solutions:

- Ensure that the router is powered on properly.
- Ensure that the computer is connected to a LAN port (1, 2 or IPTV/3) of the router, and [configure the computer to obtain an IP address automatically](#).
- Restore the router to factory settings and try again.

The following page appears.

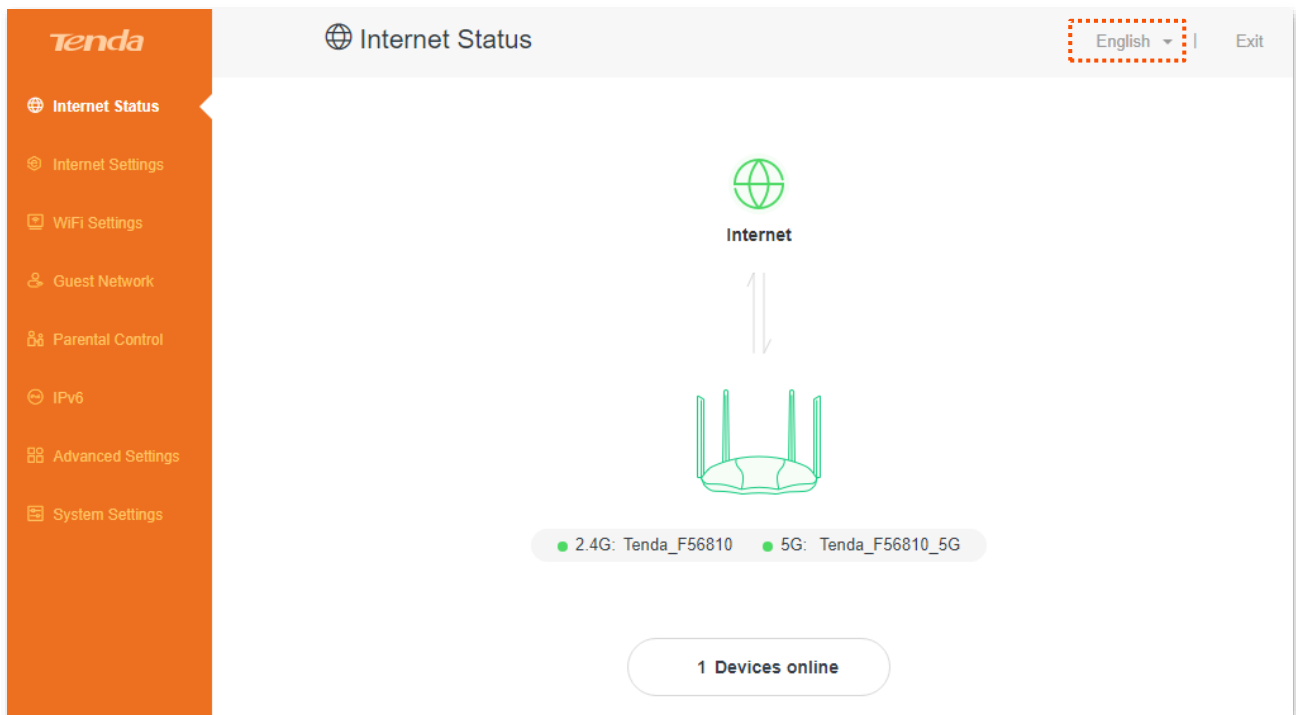


1.2 Log out of the web UI

If you log in to the web UI of the router and perform no operation within 5 minutes, the router logs you out automatically. You can also log out by clicking **Exit** at the top right corner of the web UI.

1.3 Change the language

The default language displayed is **English**. You can select another language from the drop-down list in the upper right corner.



1.4 Web UI layout

The web UI of the router consists of two sections, including the navigation bar and the configuration area. See the following figure.

The screenshot shows the Tenda web UI for the Guest Network configuration. On the left is an orange navigation bar (labeled 1) with the Tenda logo and menu items: Internet Status, Internet Settings, WiFi Settings, Guest Network (selected), Parental Control, IPv6, Advanced Settings, and System Settings. The main configuration area (labeled 2) has a header 'Guest Network' with a language dropdown set to 'English' and an 'Exit' link. The configuration fields are: 'Guest Network' toggle switch, '2.4 GHz WiFi Name' text box containing 'Tenda_VIP', '5 GHz WiFi Name' text box containing 'Tenda_VIP_5G', 'Guest Network Password' text box with the hint 'Blank means no password.', 'Validity' dropdown menu set to '8 hours', and 'Shared Bandwidth for Guests' dropdown menu set to 'Unlimited' with a unit of 'Mbps'. A green 'Save' button is located at the bottom center.



Features displayed in gray are not available or cannot be configured under the current condition.

SN	Name	Description
1	Navigation bar	Used to display the function menu of the router. Users can select functions in the navigation bar and the configuration page appears in the configuration area.
2	Configuration area	Used to modify or view your configurations.

2 Internet status

[Log in to the web UI](#) of the router and navigate to **Internet Status** to enter the page. On this page, you can check:

- [Internet status](#)
- [Wireless information](#)
- [System information](#)
- [Online device information](#)

2.1 Internet status

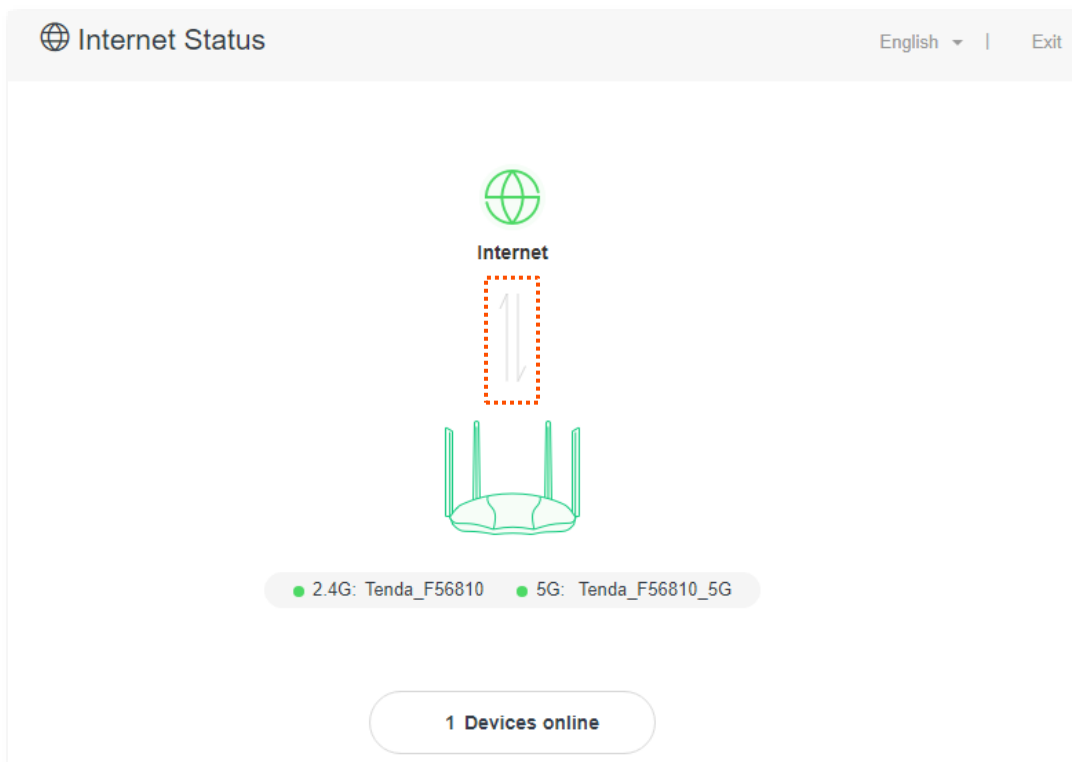
To view internet status:

Step 1 [Log in to the web UI](#) of the router.

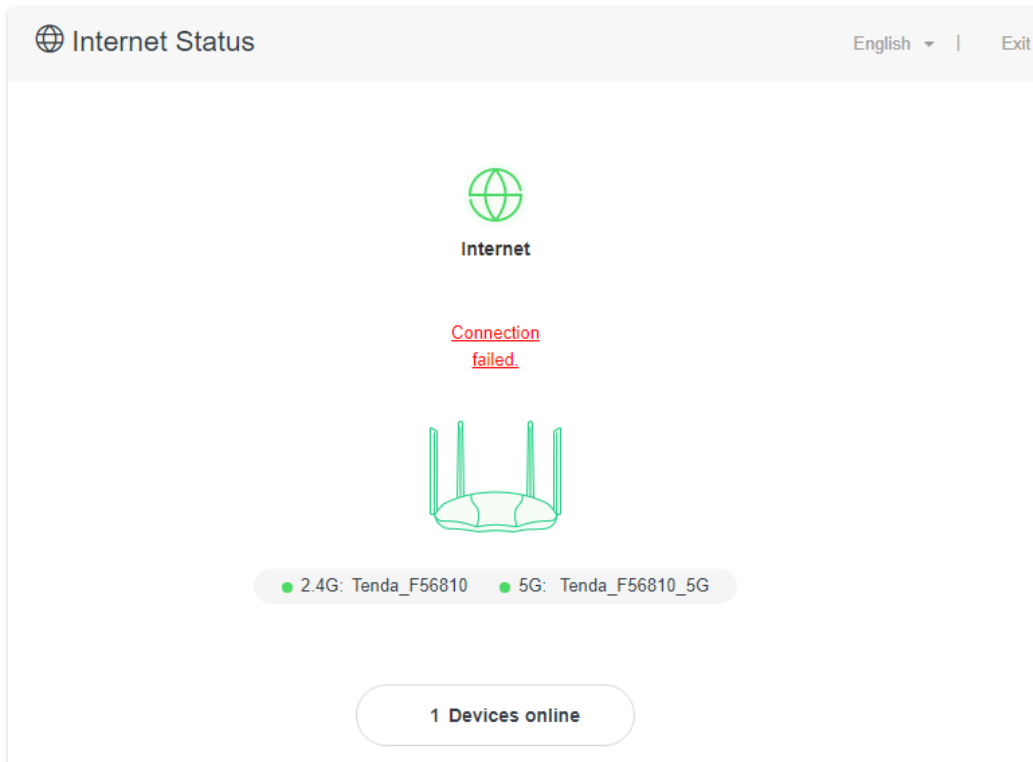
Step 2 Navigate to **Internet Status**.

---End

When the **Internet** and the **Router** are connected as shown below, the router is connected to the internet successfully.



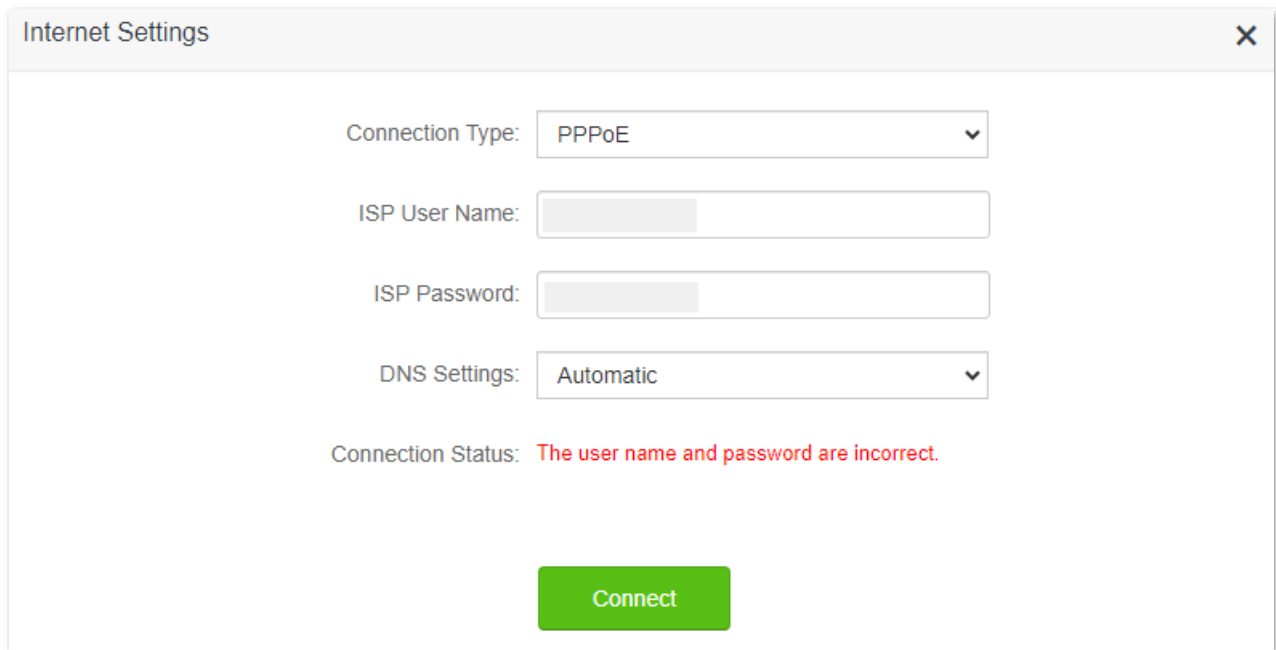
When “**Connection failed**” is shown between the **Internet** and the **Router**, it indicates that the internet connection is abnormal. Please click **Connection failed** to navigate to the **Internet Settings** page and follow the instructions to solve the problem.



When “**Please ensure that the cable between the Internet port of the router and the modem is properly connected**” is shown on the page, ensure that the WAN port of the router and the LAN port of the modem or the Ethernet jack are connected properly. If the problem persists, contact the technical support for help.

The screenshot shows a web interface titled "Internet Settings" with a close button (X) in the top right corner. It contains several configuration fields: "Connection Type:" with a dropdown menu showing "PPPoE"; "ISP User Name:" with a text input field; "ISP Password:" with a text input field; and "DNS Settings:" with a dropdown menu showing "Automatic". Below these fields, a "Connection Status:" section displays a red message: "Please ensure that the cable between the Internet port of the router and the modem is properly connected." At the bottom of the page is a large green button labeled "Connect".

When “**The user name and password are incorrect.**” is shown on the page, it indicates that the user name and password you entered are incorrect. Please re-enter the user name and password.



The screenshot shows a window titled "Internet Settings" with a close button (X) in the top right corner. Inside the window, there are four configuration fields: "Connection Type:" set to "PPPoE", "ISP User Name:" with an empty text box, "ISP Password:" with an empty text box, and "DNS Settings:" set to "Automatic". Below these fields, the "Connection Status:" is displayed in red text as "The user name and password are incorrect." At the bottom center of the window is a green "Connect" button.



Please consider the following tips when entering the user name and password:

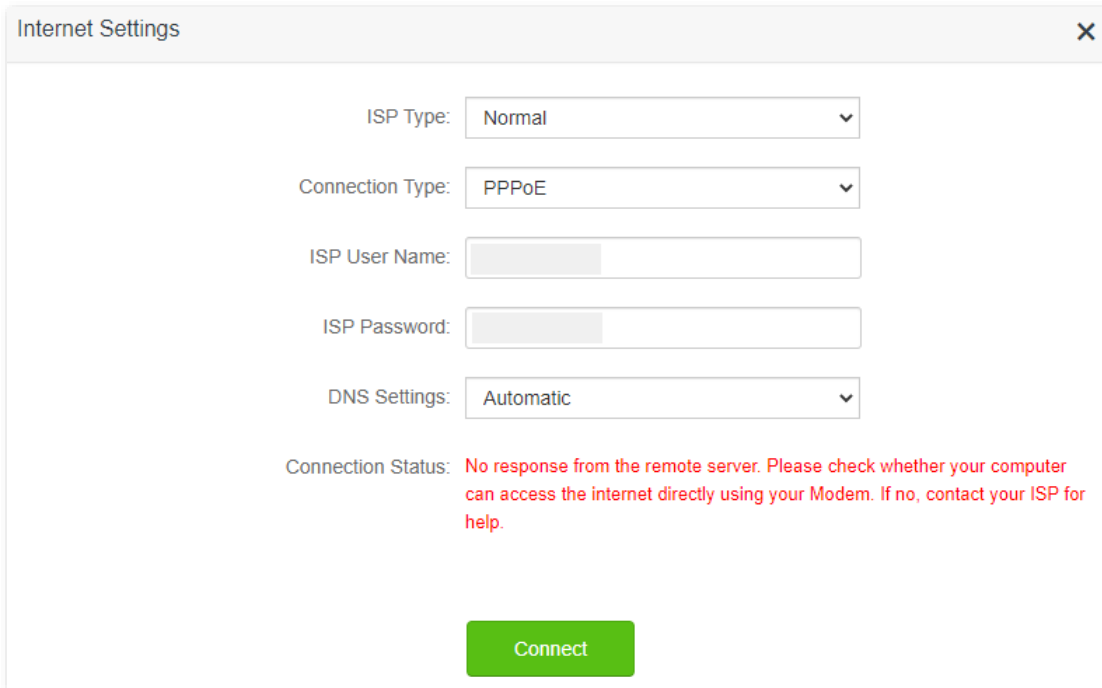
- Pay attention to case sensitivity, such as “Z” and “z”.
- Pay attention to the difference between similar letters and numbers, such as “l” and “1”.
- Ensure the completeness of account parameters, such as “0755000513@163.gd”, rather than “0755000513”.

If the problem persists, contact your ISP for help.

When “**No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.**” is shown on the page as below, try the following methods:

- Ensure that the Ethernet cable is connected properly.
- Ensure that you choose the proper connection type. Contact your ISP for any doubt about the connection type.
- Power off the router for several minutes, then power it on and try again.

If the problem persists, contact your ISP for help.



Internet Settings

ISP Type: Normal

Connection Type: PPPoE

ISP User Name:

ISP Password:

DNS Settings: Automatic

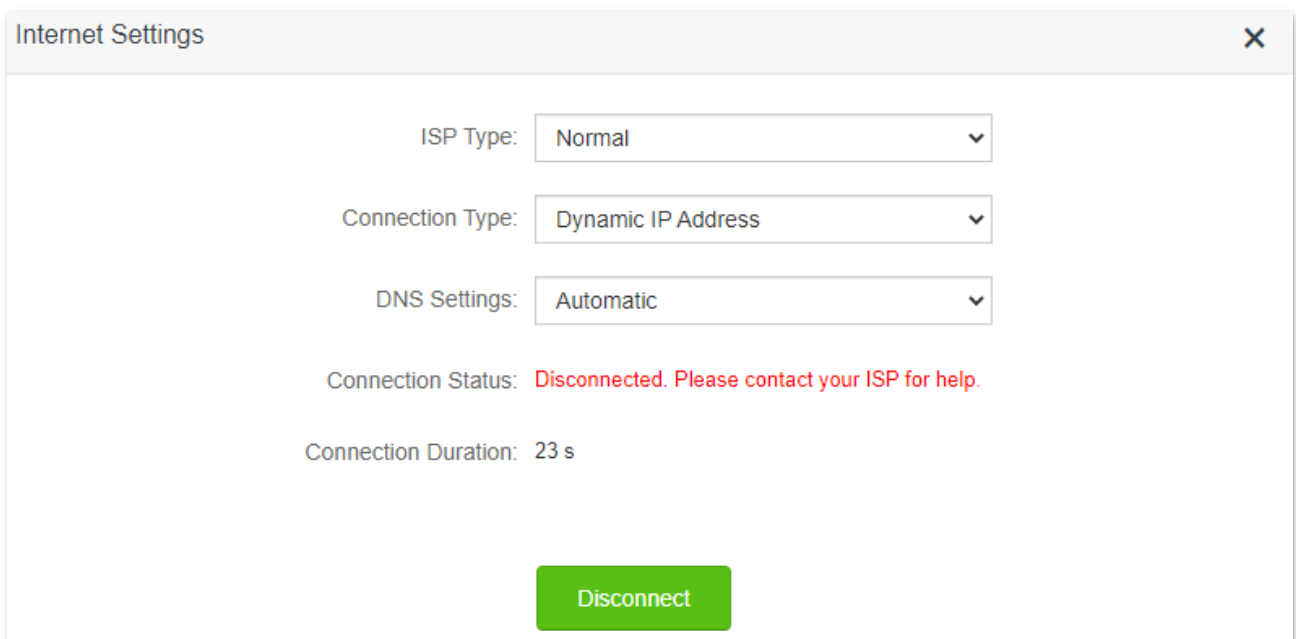
Connection Status: No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.

Connect

When “**Disconnected. Please contact your ISP for help.**” is shown on the page as below, try the following methods:

- Modify the MAC address of WAN port by referring to [Change the MAC address of the WAN port.](#)
- Use another device to configure the router again.
- Ensure that your internet service does not expire.

If the problem persists, contact Tenda technical support.



Internet Settings

ISP Type: Normal

Connection Type: Dynamic IP Address

DNS Settings: Automatic

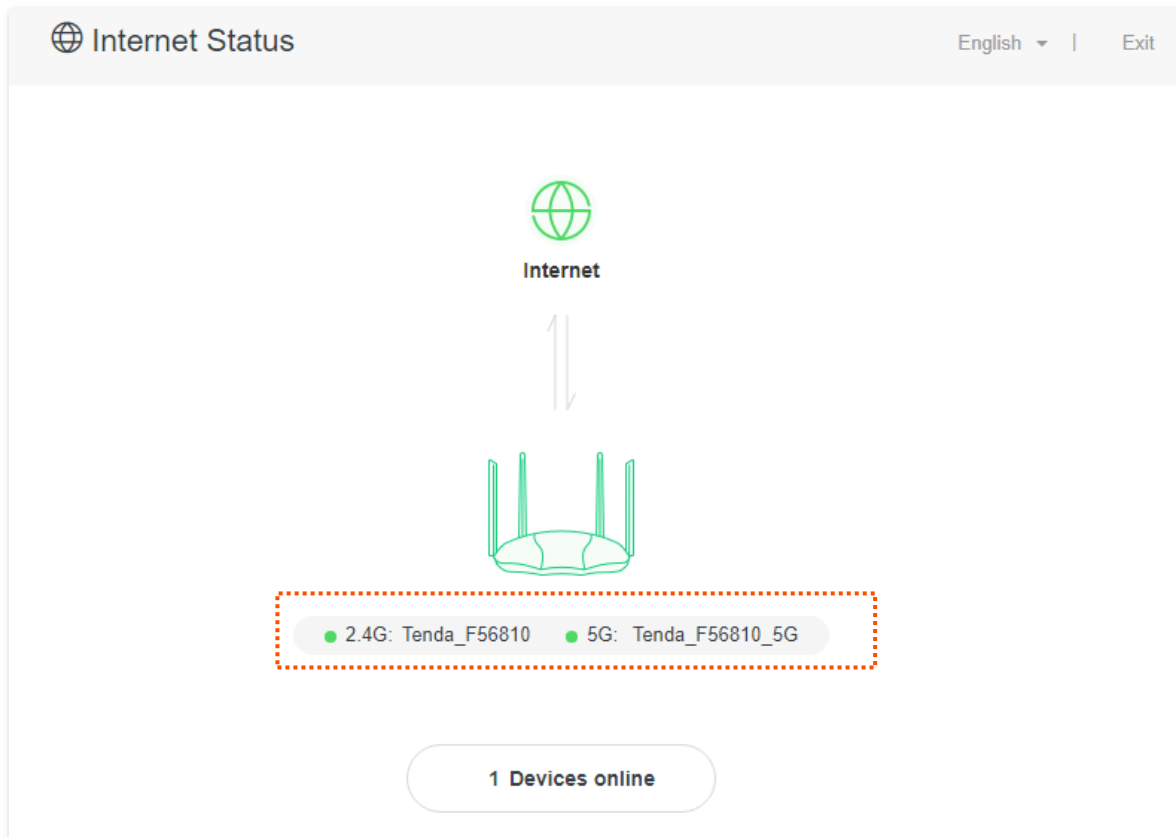
Connection Status: Disconnected. Please contact your ISP for help.

Connection Duration: 23 s

Disconnect

2.2 Wireless information

To view the WiFi names of the router, and [log in to the web UI](#) of the router. Navigate to **Internet Status**, and you can find the WiFi names on this page.



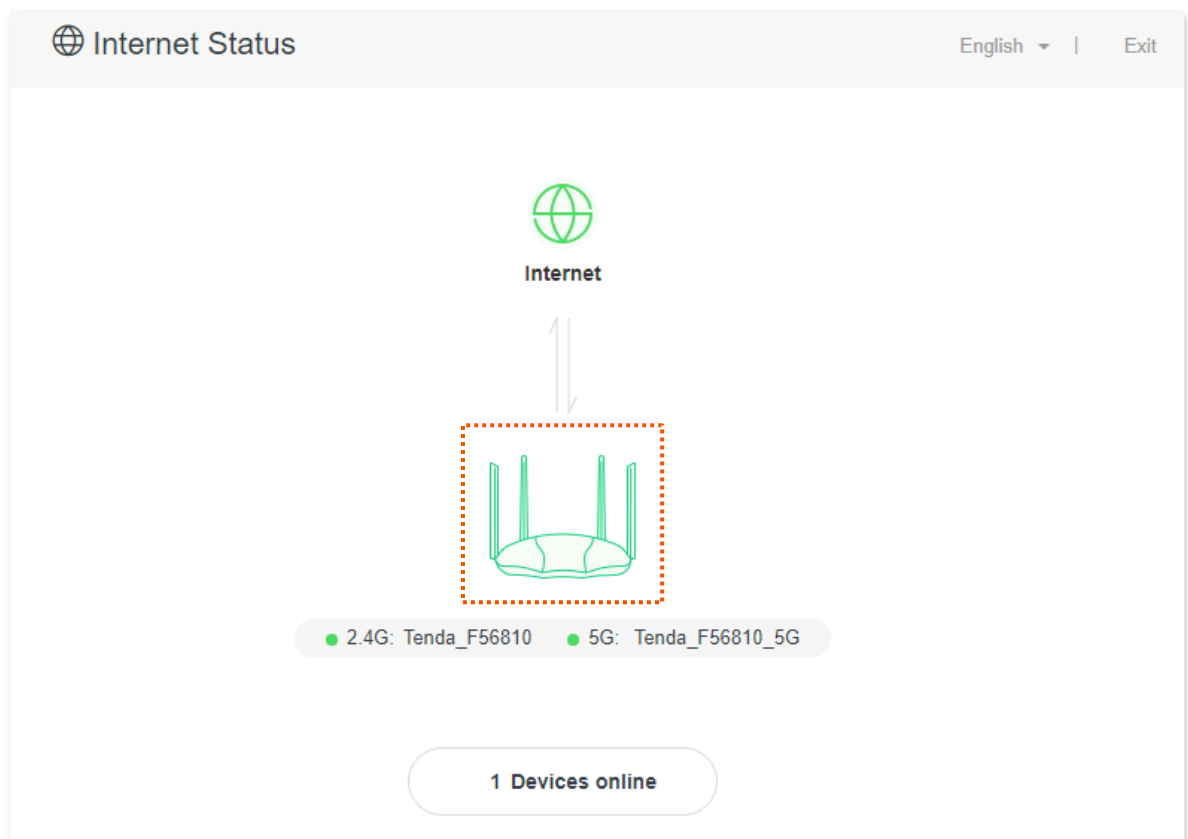
2.3 System information

To view the wireless information:

Step 1 [Log in to the web UI](#) of the router

Step 2 Navigate to **Internet Status**.

Step 3 Click .



---End



For detailed description of parameters on this page, refer to [System status](#).

2.3.1 Basic information

In this part, you can view such basic information as system time, uptime and firmware version of the router.

Information
System Time: 2023-09-19 17:05:22
Uptime: 33 min 14 s
Firmware Version: V22.03.02.20_multi
Hardware Version: V1.0

2.3.2 WAN status

In this part, you can view such information as connection type, connection status and connection duration of the WAN port.

WAN Status

Connection Type: Dynamic IP Address

Connection Status: Connected

Connection Duration: 4 s

IP Address: 192.168.101.28

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.101.1

Primary DNS: 192.168.108.110

Secondary DNS: 192.168.108.108

MAC Address:

2.3.3 LAN status

In this part, you can view such information as LAN IPv4 address, subnet mask and MAC address of the LAN port.

LAN Status

IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

MAC Address:

2.3.4 WiFi status

In this part, you can view the information of 2.4 GHz and 5 GHz WiFi networks, including status, hotspot name and encryption mode.

WiFi Status

2.4 GHz Network: Visible

Hotspot Name:

Encryption Mode: WPA/WPA2-PSK

WiFi Channel: 5

WiFi Bandwidth: 40

MAC Address:

5 GHz Network: Visible

Hotspot Name:

Encryption Mode: WPA/WPA2-PSK

WiFi Channel: 153

WiFi Bandwidth: 80

MAC Address:

2.3.5 IPv6 status

This part is only displayed when the IPv6 function is enabled. You can view the information of IPv6 connection, including connection type, IPv6 WAN address and IPv6 LAN address.

IPv6 Status	
Connection Type:	DHCPv6
IPv6 WAN Address:	240e:47d:30d9:549c:290:4cff:fe88:8a8a/64 fe80::290:4cff:fe88:8a8a/64
Default IPv6 Gateway:	fe80::1234
Primary IPv6 DNS:	240e:1f:1::1
Secondary IPv6 DNS:	240e:1f:1::33
IPv6 LAN Address:	fec0::290:4cff:fe88:8888/64 fe80::290:4cff:fe88:8888/64

2.4 Online device information

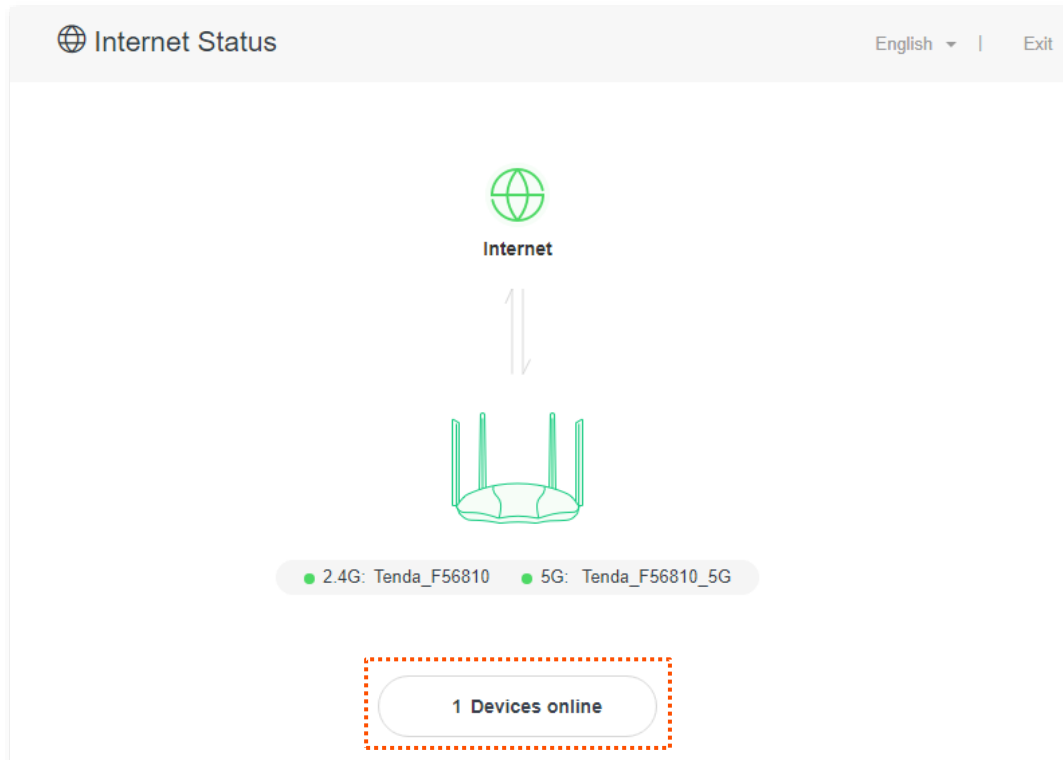
On this page, you can view the information of devices connected to the router, including the upload speed, download speed and access type. You can also add devices to the blacklist.

To access the page:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Internet Status**.

Step 3 Click **X Devices online**.







---End

2.4.1 Add devices to the blacklist

Add devices to the blacklist to block the internet access:

Step 1 Navigate to **Attached Devices**, and find the device to be added.

Attached Devices (2) Blacklist					
Device Name		Upload Speed	Download Speed	Access Type	Blacklist
 DESKTOP-5LII2L5 192.168.0.136		0.0KB/s	0.0KB/s	Wired	Local Host
 huazhondiyibiyi 192.168.0.174		0.0KB/s	0.0KB/s	5G	<input type="button" value="Add"/>

Step 2 Click **Add**.

---End

On the **Internet Status** page, click **X Devices online**, and then click **Blacklist**, you can view devices that are added to the blacklist.


Attached Devices (1) Blacklist		
Device Name	MAC Address	Remove from Blacklist
Unknown		<input type="button" value="Remove"/>

2.4.2 Remove devices from the blacklist

To remove devices from the blacklist:

Step 1 Navigate to **Blacklist**, and target the device to be removed from the blacklist.

Step 2 Click **Remove**.

Attached Devices (1) Blacklist		
Device Name	MAC Address	Remove from Blacklist
Unknown		<input type="button" value="Remove"/>

---End

3 Internet settings

3.1 Overview

By configuring the internet settings, you can achieve the shared internet access (IPv4) for multiple users within the LAN.

If you are configuring the router for the first time or after restoring it to factory settings, refer to the quick installation guide to configure the internet access. After then, you can change the internet settings by following the instructions in this chapter.



Parameters for accessing the internet are provided by your ISP. Contact your ISP for any doubt.




To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Internet Settings**.


The screenshot shows the 'Internet Settings' web interface. At the top, there's a header with a router icon, the title 'Internet Settings', and options for 'English' and 'Exit'. The main settings area includes:

- WAN Port:** A checkbox labeled 'Ethernet cable connected' is checked.
- ISP Type:** A dropdown menu showing 'Normal'.
- Connection Type:** A dropdown menu showing 'Dynamic IP Address'.
- DNS Settings:** A dropdown menu showing 'Automatic'.
- Connection Status:** A green message stating 'Connected. You can access the internet now.'
- Connection Duration:** A timer showing '14 min 40 s'.
- Disconnect:** A prominent green button at the bottom center.

Parameter description

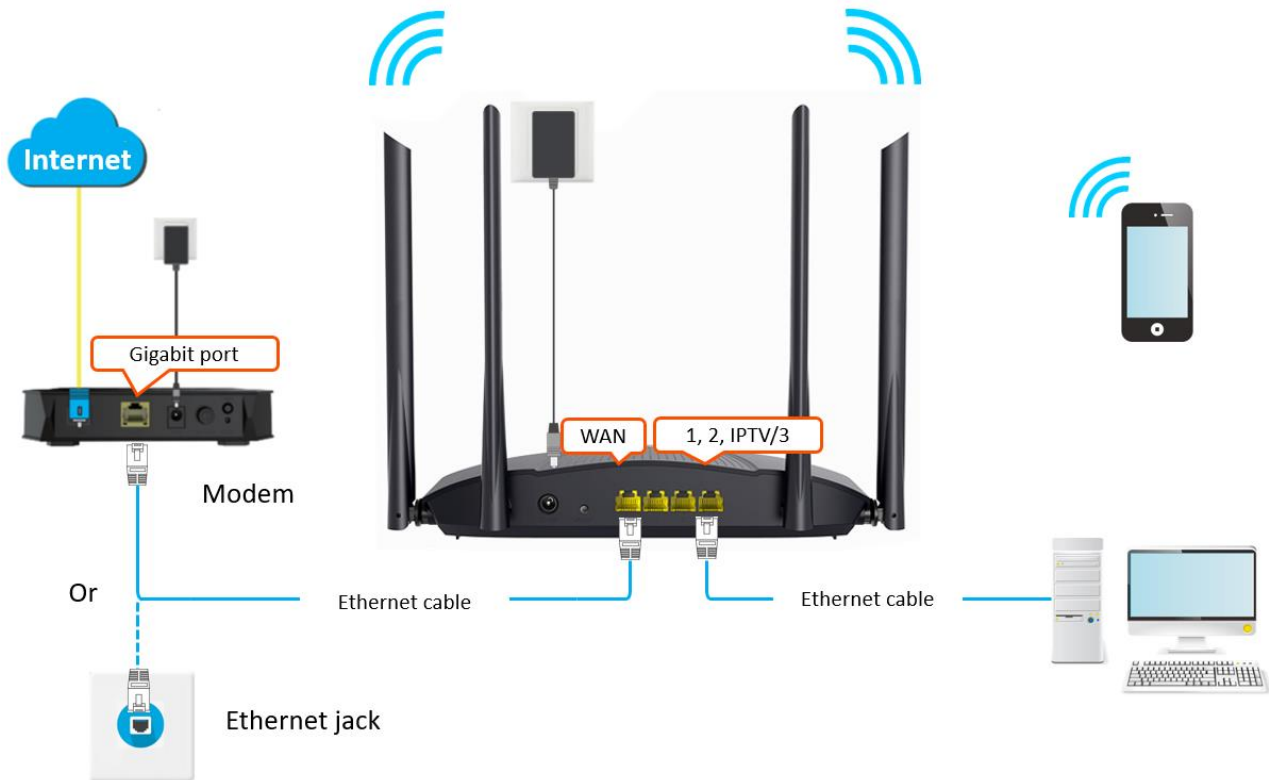
Parameter	Description
WAN Port	Specifies the physical connection status of the WAN port of the router.

Parameter	Description
ISP Type	<p>Specifies the type of your Internet Service Provider (ISP), such as Normal, Unifi, Celcom, Digi, Russia and Manual. Parameters required for each option may differ.</p> <p>Refer to the following to choose your connection type:</p> <ul style="list-style-type: none"> • Normal, Unifi, Maxis, Celcom and Digi: Select these options when your ISP provides no setup information, except for the PPPoE user name and password, or static IP address information. • Russia: Select this option when your ISP provides dual access information, such as PPTP, L2TP connection information. • Manual: Select this option when your ISP provides VLAN ID information, besides the PPPoE user name and account, or static IP address. <p>If you are still not sure, contact your ISP for reference.</p>
Connection Type	<p>Specifies how your router connects to the internet, including:</p> <ul style="list-style-type: none"> • PPPoE: Select this type if you access the internet using the PPPoE account and PPPoE password. Russia PPPoE is available only when you set ISP Type to Russia. • Dynamic IP Address: Select this type if you can access the internet by simply plugging in an Ethernet cable. • Static IP Address: Select this type if you want to access the internet using fixed IP information. • Russia PPTP, Russia L2TP: These types are available when ISP Type is set to Russia.
ISP User Name	When the connection type is PPPoE, you need to enter the user name and password provided by your ISP to access the internet.
ISP Password	
IP Address	<p>When the connection type is static IP address, enter the fixed IP address information provided by your ISP.</p> <p> TIP</p>
Subnet Mask	
Default Gateway	
Primary DNS Server	
Secondary DNS Server	If your ISP only provides one DNS server, you can leave the Secondary DNS Server blank.
Server IP Address/Domain Name	<p>Used for setting up internet access in the dual access network environment.</p> <p> TIP</p>
User Name	When the ISP type is Russia and the Connection Type is Russia PPTP or L2TP , these parameters are required.
Password	
Address Type	<p>Specifies the method for obtaining IP address information to access the “local” network, where the internal resources of the ISP are located.</p> <p> TIP</p> <p>When the ISP type is Russia, this parameter is required.</p>
Internet VLAN ID	When the ISP type is Manual , you can configure these parameters.

Parameter	Description
	 TIP
IPTV VLAN ID	Internet VLAN ID is required, while IPTV VLAN ID is optional. Blank VLAN ID indicates that the IPTV function is disabled.
DNS Settings	<p>Specifies the obtaining method of WAN port DNS address, which is Automatic by default.</p> <ul style="list-style-type: none"> • Automatic: The router obtains a DNS server address from the DHCP server of the upstream network automatically. • Manual: The DNS server address is configured manually.
Connection Status	<p>Specifies the internet connection status.</p> <ul style="list-style-type: none"> • When “Connected. You can access the internet now.” is shown here, the router is connected to the internet successfully. • When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the tips provided.
Connection Duration	Specifies the duration since the router is connected to the internet.

3.2 Access the internet with a PPPoE account

If the ISP provides you with PPPoE user name and password, you can choose this connection type to access the internet. The application scenario is shown below.



Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Choose an **ISP Type**.

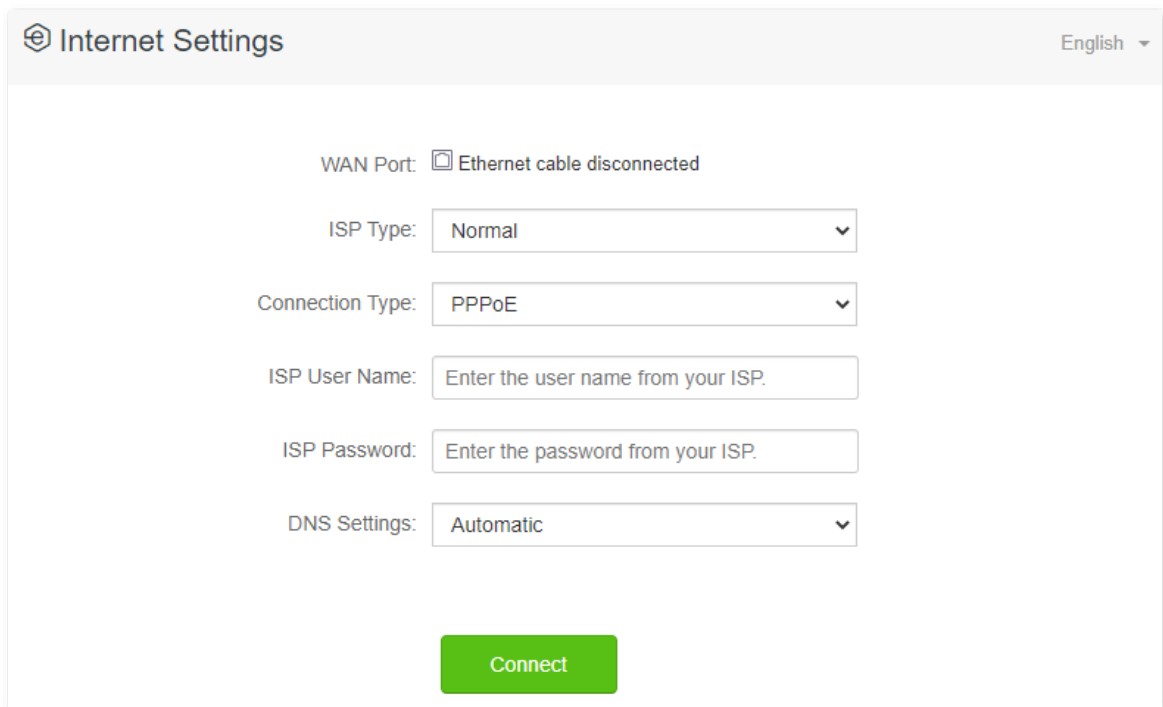


If you choose **Manual** as the ISP type, enter the Internet VLAN ID and IPTV VLAN ID (if any) provided by your ISP.

Step 4 Set **Connection Type** to **PPPoE**.

Step 5 Enter the **ISP User Name** and **ISP Password**.

Step 6 Click **Connect**.



The screenshot shows the 'Internet Settings' window with the title bar 'Internet Settings' and a language dropdown set to 'English'. The 'WAN Port' status is 'Ethernet cable disconnected'. The 'ISP Type' is set to 'Normal', 'Connection Type' to 'PPPoE', 'ISP User Name' to 'Enter the user name from your ISP.', 'ISP Password' to 'Enter the password from your ISP.', and 'DNS Settings' to 'Automatic'. A green 'Connect' button is at the bottom.

Internet Settings English ▾

WAN Port: ☐ Ethernet cable disconnected

ISP Type: Normal ▾

Connection Type: PPPoE ▾

ISP User Name: Enter the user name from your ISP.

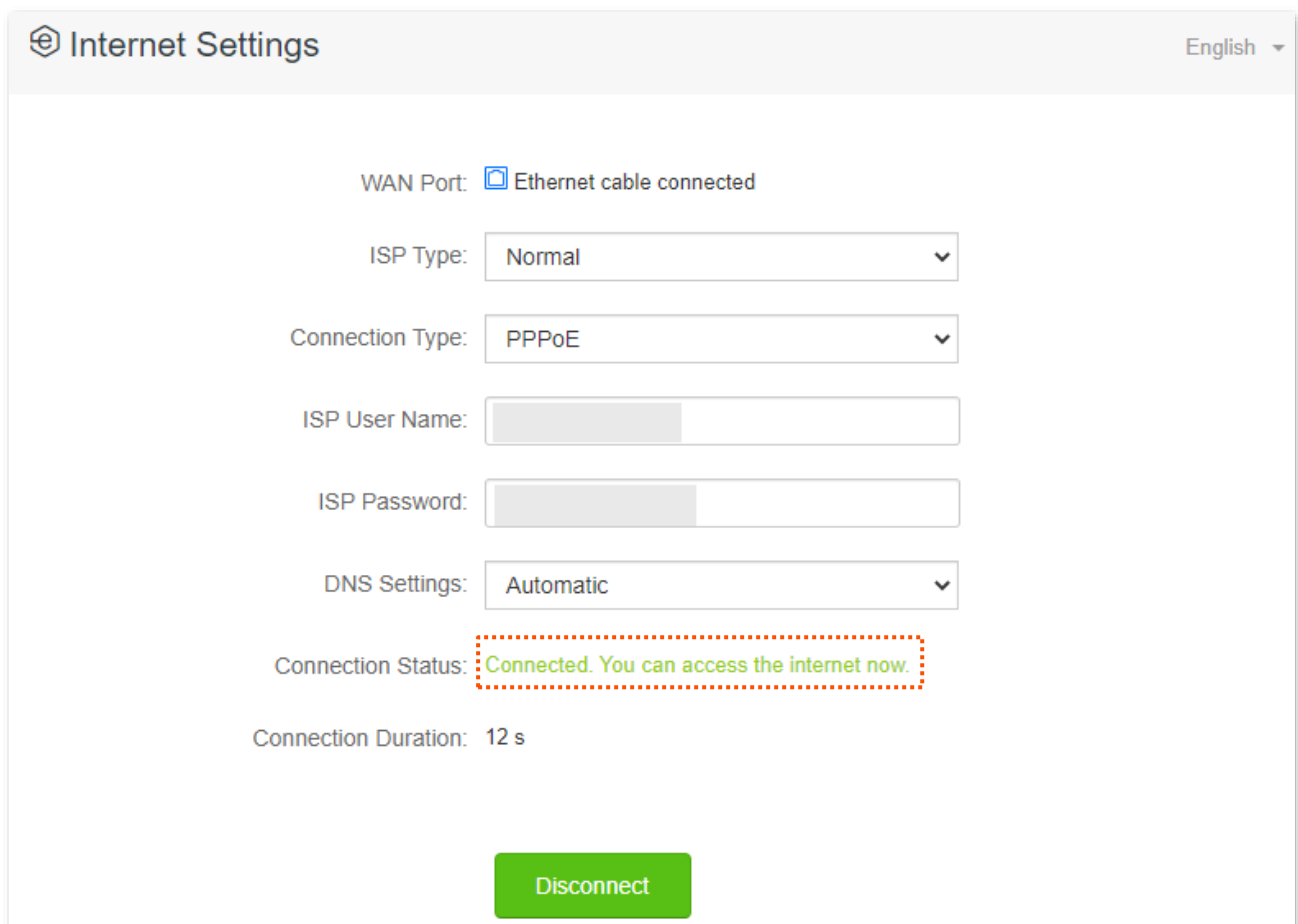
ISP Password: Enter the password from your ISP.

DNS Settings: Automatic ▾

Connect

---End

Wait a moment until “**Connected. You can access the internet now.**” is shown on the page, and you can access the internet.



The screenshot shows the 'Internet Settings' window after a successful connection. The 'WAN Port' status is now 'Ethernet cable connected'. The 'Connection Status' is 'Connected. You can access the internet now.', which is highlighted with a red dashed border. The 'Connection Duration' is '12 s'. The 'Disconnect' button is now visible at the bottom.

Internet Settings English ▾

WAN Port: ☒ Ethernet cable connected

ISP Type: Normal ▾

Connection Type: PPPoE ▾

ISP User Name:

ISP Password:

DNS Settings: Automatic ▾

Connection Status: **Connected. You can access the internet now.**

Connection Duration: 12 s

Disconnect



If you fail to access the internet, try the following methods:

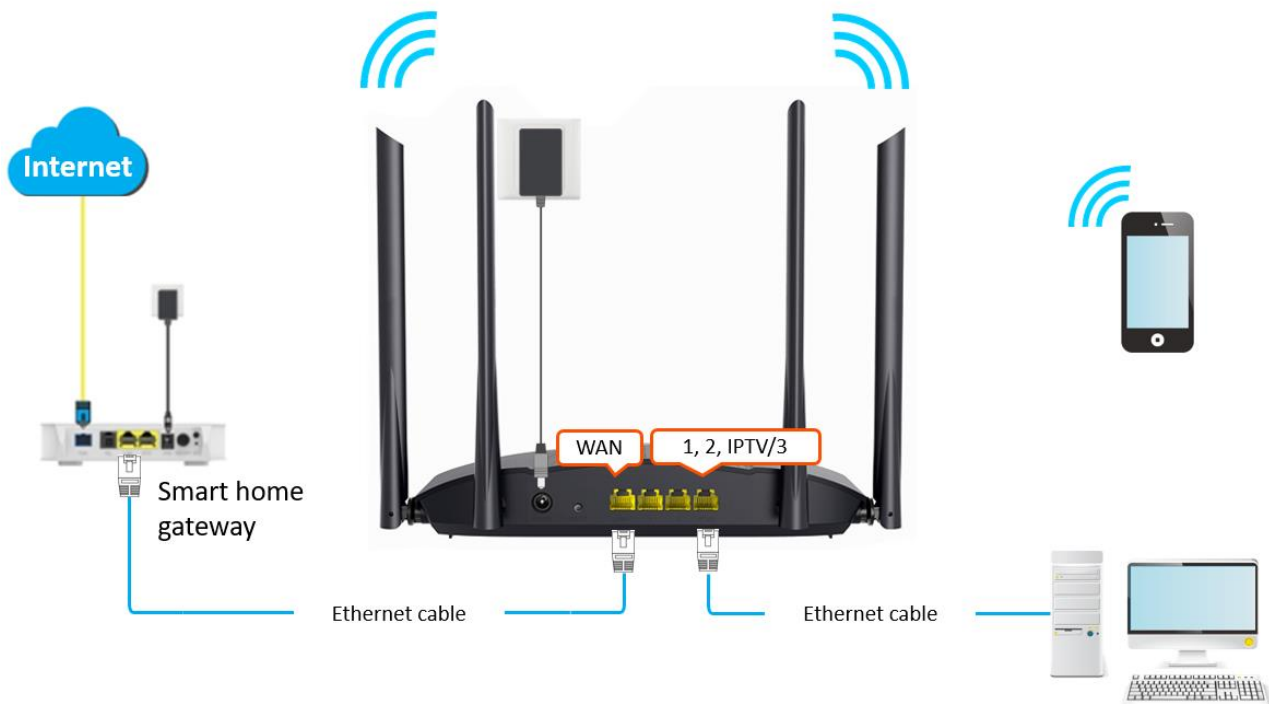
- If “No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.” is shown on the page, you are recommended to choose [Dynamic IP Address](#) to access the internet.
 - If the problem persists, refer to [View the internet status](#) to find a solution.
-

3.3 Access the internet through dynamic IP address

Generally, accessing the internet through dynamic IP address is applicable in the following situations:

- Your ISP does not provide PPPoE user name and password, or any information including IP address, subnet mask, default gateway and DNS server.
- You already have a router with internet access and want to add another router.

The application scenario is shown below.



Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Internet Settings**.

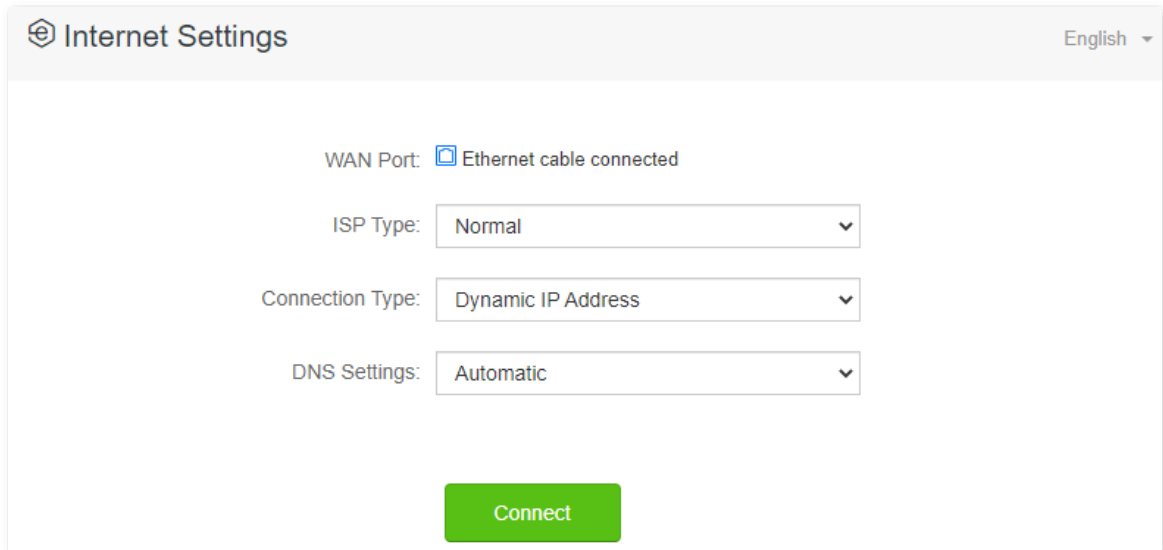
Step 3 Choose an **ISP Type**.



If you choose **Manual** as the ISP type, enter the **Internet VLAN ID** and **IPTV VLAN ID** (if any) provided by your ISP.

Step 4 Set **Connection Type** to **Dynamic IP Address**.

Step 5 Click **Connect**.



Internet Settings English ▾

WAN Port: ☒ Ethernet cable connected

ISP Type: Normal ▾

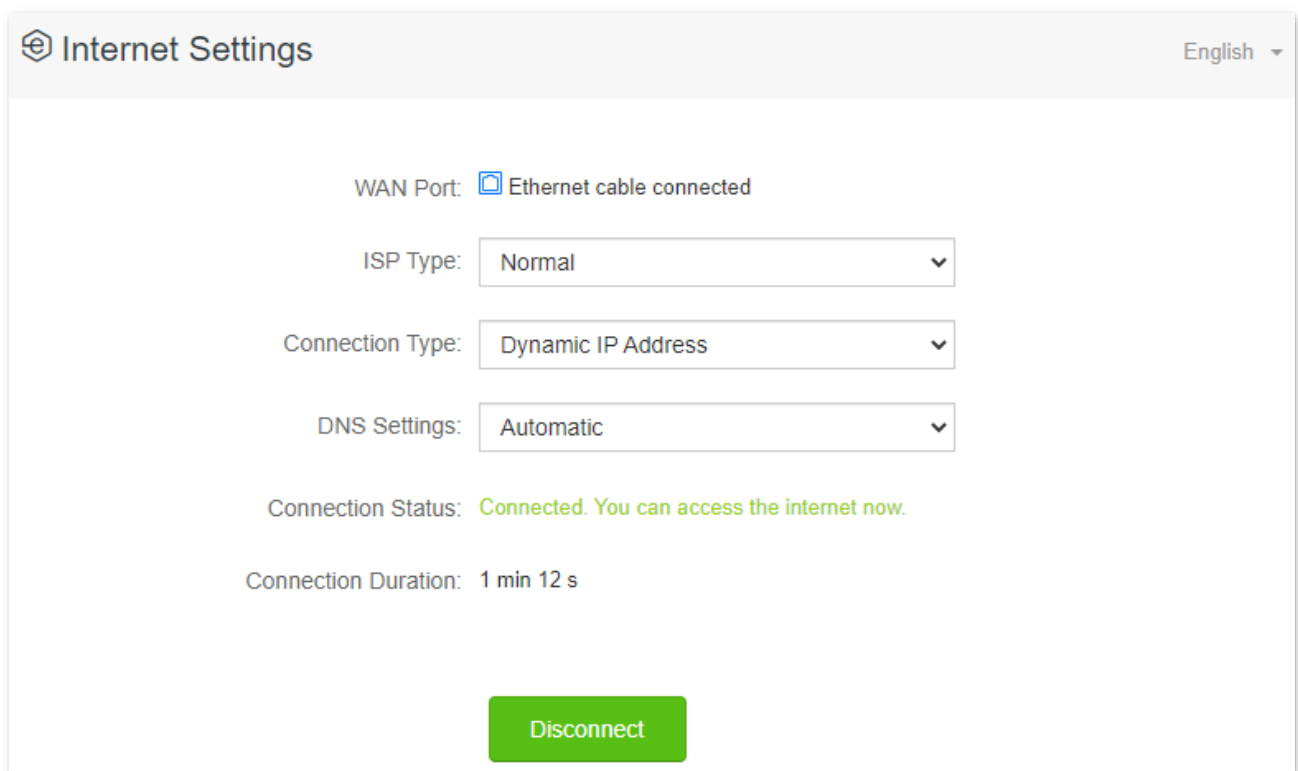
Connection Type: Dynamic IP Address ▾

DNS Settings: Automatic ▾

Connect

---End

Wait a moment until “**Connected. You can access the internet now.**” is shown on the page, and you can access the internet.



Internet Settings English ▾

WAN Port: ☒ Ethernet cable connected

ISP Type: Normal ▾

Connection Type: Dynamic IP Address ▾

DNS Settings: Automatic ▾

Connection Status: **Connected. You can access the internet now.**

Connection Duration: 1 min 12 s

Disconnect

If you fail to access the internet, refer to [View the internet status](#) to find a solution.

3.4 Access the internet with a set of static IP address information

When your ISP provides you with information including IP address, subnet mask, default gateway and DNS server, you can choose this connection type to access the internet.

Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Choose an **ISP Type**.



If you choose **Manual** as the ISP type, enter the **Internet VLAN ID** and **IPTV VLAN ID** (if any) provided by your ISP.

Step 4 Set **Connection Type** to **Static IP Address**.

Step 5 Enter **IP Address**, **Subnet Mask**, **Default Gateway** and **Primary/Secondary DNS Server**.


Step 6 Click **Connect**.


The screenshot shows the 'Internet Settings' page in a web browser. The page has a title bar with a gear icon and the text 'Internet Settings', and a language dropdown set to 'English'. The main content area contains the following fields and options:

- WAN Port:** A checkbox labeled 'Ethernet cable connected' is checked.
- ISP Type:** A dropdown menu showing 'Normal'.
- Connection Type:** A dropdown menu showing 'Static IP Address'.
- IP Address:** An empty text input field.
- Subnet Mask:** An empty text input field.
- Default Gateway:** An empty text input field.
- Primary DNS Server:** An empty text input field.
- Secondary DNS Server:** An empty text input field.
- Connect:** A green button at the bottom center.

---End

Wait a moment until “**Connected. You can access the internet now.**” is shown on the page, and you can access the internet.

 Internet Settings English ▾

WAN Port:  Ethernet cable connected

ISP Type:

Normal ▾

Connection Type:

Static IP Address ▾

IP Address:

Subnet Mask:

Default Gateway:

Primary DNS Server:

Secondary DNS Server:

Connection Status: **Connected. You can access the internet now.**

Connection Duration: 11 s

Disconnect

If you fail to access the internet, refer to [View the internet status](#) to find a solution.

3.5 Set up dual access connection

In countries like Russia, the ISP may require you to set up dual access. One is for the access to the internet through PPPoE, PPTP or L2TP, and the other is for access to the “local” resources where the ISP is located through DHCP or static IP. If your ISP provides such connection information, you can set up dual access to access the internet.

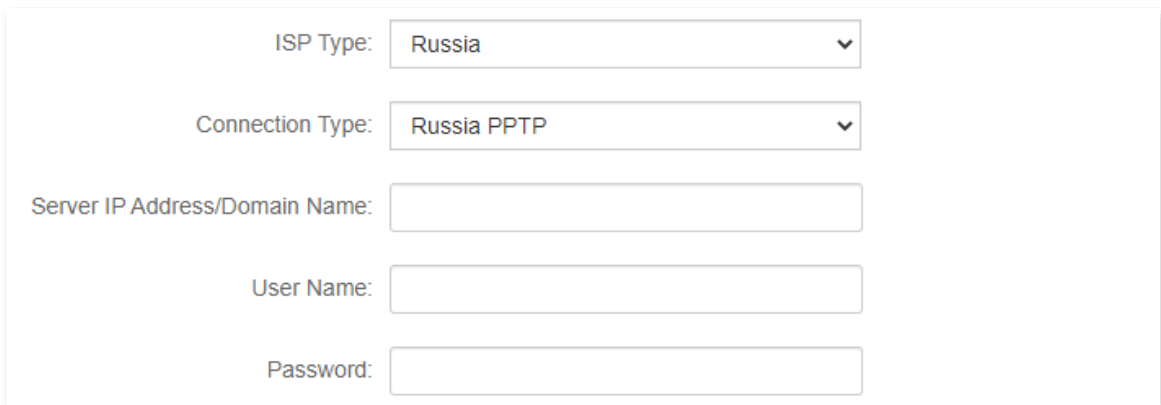
Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Set **ISP Type** to **Russia**.

Step 4 Choose a **Connection Type**, which is **Russia PPTP** in this example, and fill in required parameters.



ISP Type:

Connection Type:

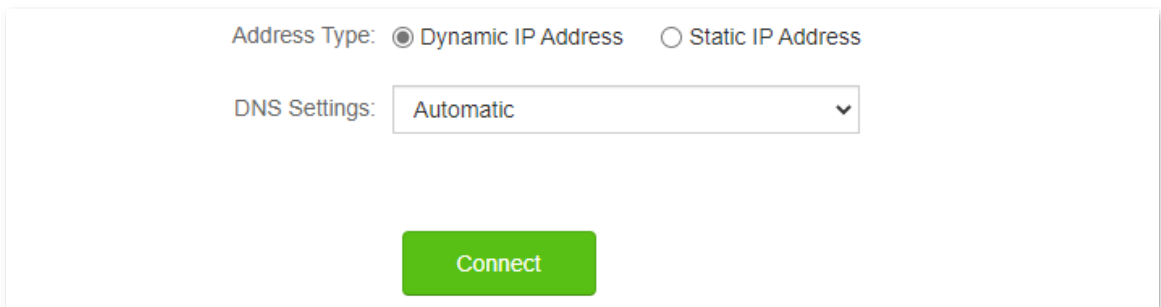
Server IP Address/Domain Name:

User Name:

Password:

Step 5 Choose an **Address Type**, and fill in required parameters.

Step 6 Click **Connect** on the bottom.



Address Type: ☒ Dynamic IP Address ☐ Static IP Address

DNS Settings:

---End

Wait a moment until “**Connected. You can access the internet now.**” is shown on the page, and you can access the internet.

If you fail to access the internet, refer to [View the internet status](#) to find a solution.

4 WiFi settings

4.1 WiFi name & password



4.1.1 Overview

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **WiFi Settings > WiFi Name & Password**.

On this page, you can configure basic WiFi parameters, such as the WiFi name and password.

Parameter description

Parameter	Description
Unify 2.4 GHz & 5 GHz	Used to enable or disable the Unify 2.4 GHz & 5 GHz function. When this function is enabled, the 2.4 GHz and 5 GHz WiFi networks share the same SSID and password. WiFi-enabled clients connected to it will use the frequency with better connection quality. For details, see Separate the 2.4 GHz and 5 GHz WiFi networks .
Enable WiFi Network	Used to enable or disable the WiFi networks of the router.

Parameter	Description
2.4 GHz Network	Used to enable or disable the 2.4 GHz network and 5 GHz network separately when the Unify 2.4 GHz & 5 GHz function is disabled.
5 GHz Network	<ul style="list-style-type: none"> If the WiFi-enabled devices such as smartphones are far away from the router, or blocked from the router by a wall, it is recommended to connect to the 2.4 GHz network. If the WiFi-enabled devices are close to the router, it is recommended to connect to the 5 GHz network.
WiFi Name	Specifies the WiFi network name (SSID) of the corresponding WiFi network.
Hide	<p>Used to hide the WiFi name of the WiFi network, improving the security level of the WiFi network.</p> <p>When this function is enabled, the WiFi network is invisible to WiFi-enabled devices. You need to enter the WiFi network information on your WiFi-enabled devices (such as a smartphone) manually if you want to join the WiFi network.</p>
Encryption Mode	<p>Specifies the encryption modes supported by the router, including:</p> <ul style="list-style-type: none"> None: It indicates that the WiFi network is not encrypted and any clients can access the network without a password. This option is not recommended as it leads to low network security. WPA-PSK: The network is encrypted with WPA-PSK/AES, which has a better compatibility than WPA2-PSK. WPA2-PSK: The network is encrypted with WPA2-PSK/AES, which has a higher security level than WPA-PSK. WPA/WPA2-PSK (recommended): The network is encrypted with both WPA-PSK and WPA2-PSK, improving both security and compatibility. WPA3-SAE/WPA2-PSK: The network is encrypted with both WPA3-SAE and WPA2-PSK, improving both security and compatibility. <p> TIP</p> <p>WPA3-SAE is the upgraded version of WPA2-PSK. If your WiFi-enabled device does not support WPA3-SAE, or you get poor WiFi experience, it is recommended to use WPA/WPA2-PSK (recommended).</p>
WiFi Password	<p>Specifies the password for connecting to the WiFi network. You are strongly recommended to set a WiFi password for security.</p> <p> TIP</p> <p>It is recommended to use the combination of numbers, uppercase letters, lowercase letters and special symbols in the password to enhance the security of the WiFi network.</p>

4.1.2 Unify the 2.4 GHz and 5 GHz Wi-Fi networks

The router supports 2.4 GHz and 5 GHz Wi-Fi networks, which are separated by default. You can unify their Wi-Fi names and passwords as required.

To separate the Wi-Fi names of the networks:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **WiFi Settings > WiFi Name & Password**.

Step 3 Enable **Unify 2.4 GHz & 5 GHz**.

Step 4 Set **WiFi Name** and **WiFi Password**.

In this example, the Wi-Fi networks are named **Tenda_test**.

Step 5 Click **Save**.

---End

When completing the configurations, you can connect to the Wi-Fi networks using the same Wi-Fi name and password.

4.1.3 Separate the 2.4 GHz and 5 GHz WiFi networks

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **WiFi Settings > WiFi Name & Password**.

Step 3 Disable **Unify 2.4 GHz & 5 GHz**.

Step 4 Customize the **WiFi Name** and **WiFi Password** of each WiFi network.

Step 5 Click **Save**.

---End

When completing the configurations, you can connect to the WiFi networks of the router to access the internet.

4.1.4 Change the WiFi name and WiFi password

The router supports both 2.4 GHz and 5 GHz WiFi networks.

Assume that you want to change the 2.4 GHz WiFi name and password to **John_Doe_2.4GHz** and **Tenda+Wireless24**, and the 5 GHz WiFi name and password to **John_Doe_5GHz** and **Tenda+Wireless5**. Both networks adopt **WPA/WPA2-PSK (recommended)** as the encryption type.

Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **WiFi Settings > WiFi Name & Password**.
- Step 3** Disable **Unify 2.4 GHz & 5 GHz**.
- Step 4** Change the parameters of the 2.4 GHz network.
 1. Change the **WiFi Name** of the 2.4 GHz network, which is **John_Doe_2.4GHz** in this example.
 2. Choose an **Encryption Mode**, which is **WPA/WPA2-PSK (recommended)** in this example.
 3. Change the **WiFi Password** of the 2.4 GHz network, which is **Tenda+Wireless24** in this example.
- Step 5** Change the parameters of the 5 GHz network.

1. Change the **WiFi Name** of the 5 GHz network, which is **John_Doe_5GHz** in this example.
2. Choose an **Encryption Mode**, which is **WPA/WPA2-PSK (recommended)** in this example.
3. Change the **WiFi Password** of the 5 GHz network, which is **Tenda+Wireless5** in this example.

Step 6 Click **Save**.

WiFi Name & Password

Unify 2.4 GHz & 5 GHz ☐

2.4 GHz Network ☒

WiFi Name: ☐ Hide

Encryption Mode:

WiFi Password:

5 GHz Network ☒

WiFi Name: ☐ Hide

Encryption Mode:

WiFi Password:

Save

---End

When completing the configurations, you can connect your WiFi-enabled devices to the WiFi networks of the router to access the internet.

4.1.5 Hide the WiFi network

The hidden WiFi networks are invisible to WiFi-enabled devices, thus improving the security of the networks.

Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **WiFi Settings > WiFi Name & Password**.

Step 3 Tick **Hide** of the target network.

Step 4 Click **Save**.

WiFi Name & Password

Unify 2.4 GHz & 5 GHz ☐

2.4 GHz Network ☒

WiFi Name: John_Doe_2.4GHz ☒ Hide

Encryption Mode: WPA/WPA2-PSK (recommend ▼)

WiFi Password:

5 GHz Network ☒

WiFi Name: John_Doe_5GHz ☒ Hide

Encryption Mode: WPA/WPA2-PSK (recommend ▼)

WiFi Password:

Save

---End

When completing the configurations, the corresponding WiFi network is invisible to WiFi-enabled devices.

4.1.6 Connect to a hidden WiFi network

When a WiFi network is hidden, you need to enter the WiFi name manually and connect to it.

Assume that the Unify 2.4 GHz & 5 GHz function is enabled and the WiFi parameters are:

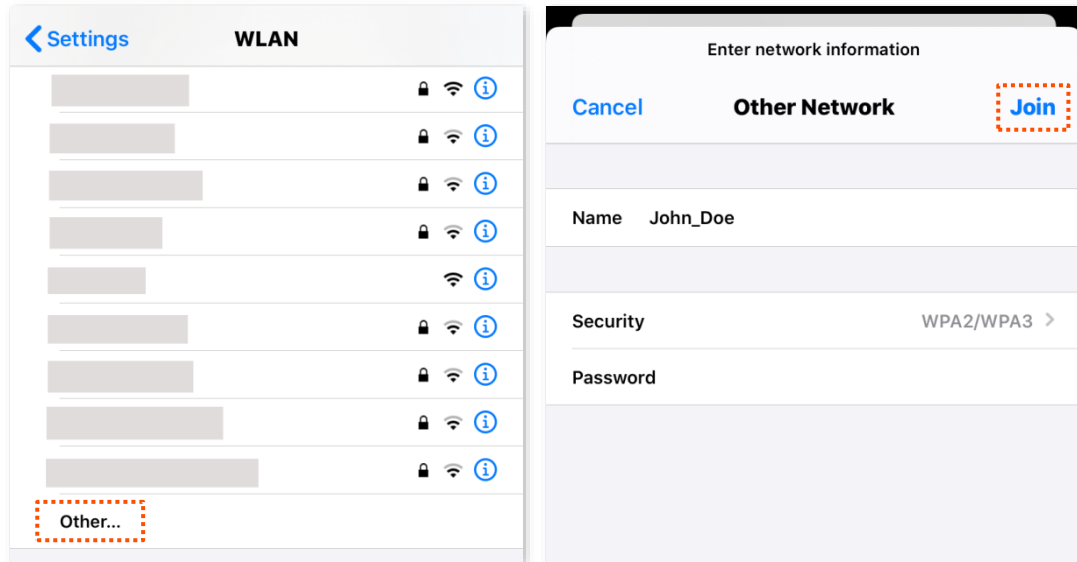
- WiFi name: Jone_Doe
- Encryption type: WPA/WPA2-PSK (recommended)
- WiFi password: Tenda+Wireless245



If you do not remember the wireless parameters of the WiFi network, [log in to the web UI](#) of the router and navigate to **WiFi Settings > WiFi Name & Password** to find them.

Connect to the WiFi network on your WiFi-enabled device (Example: iPhone):

- Step 1** Tap **Settings** on your phone, and find **WLAN**.
- Step 2** Enable **WLAN**.
- Step 3** Scroll the WiFi list to the bottom, and tap **Other....**
- Step 4** Enter the WiFi name and password, which are **John_Doe** and **Tenda+Wireless245** in this example.
- Step 5** Set security to **WPA2/WPA3** (If WPA2/WPA3 is not available, choose WPA2).
- Step 6** Tap **Join**.



---End

When completing the configurations, you can connect to the hidden WiFi network to access the internet.

4.2 WiFi schedule

4.2.1 Overview

This WiFi Schedule function allows you to disable the WiFi networks of the router at specified period. By default, this function is disabled.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **WiFi Settings > WiFi Schedule**. The following displays the page when the WiFi schedule function is enabled.



To make the WiFi schedule work properly, please ensure the system time is synchronized with the internet time. Refer to [Sync the system time with the internet time](#) for configuration.

Parameter description

Parameter	Description
WiFi Schedule	Used to enable or disable the WiFi schedule function.
Turn Off During	Specifies the period when the WiFi networks are disabled.
In	Specifies the day(s) on which the WiFi networks are disabled during the specified period.

4.2.2 Set a WiFi schedule

Assume that you want to disable the WiFi network from 22:00 to 7:00 every day.

Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

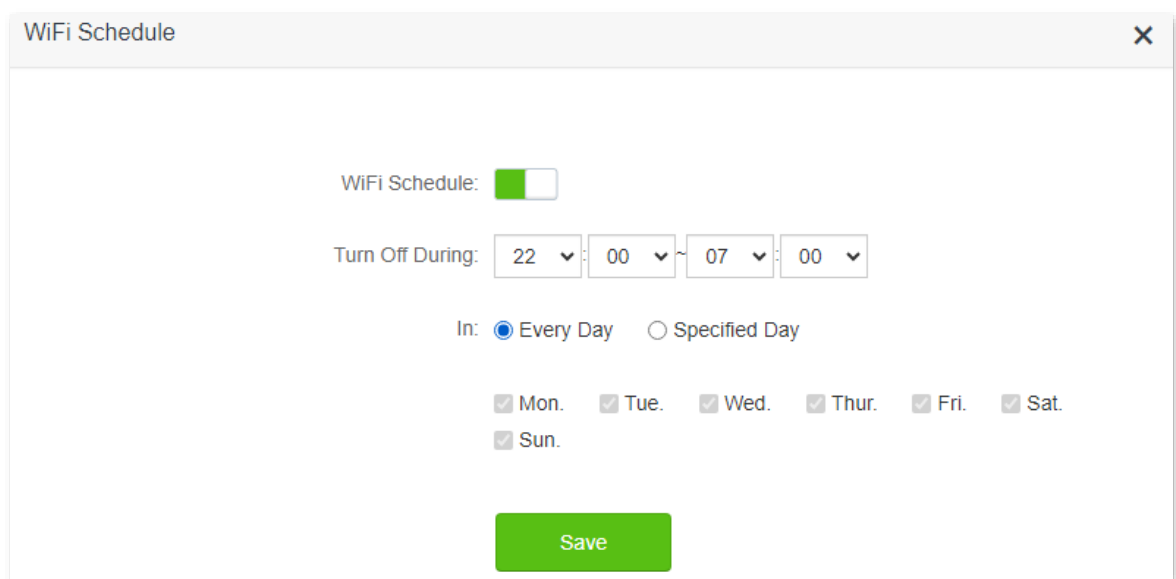
Step 2 Navigate to **WiFi Settings > WiFi Schedule**.

Step 3 Enable **WiFi Schedule**.

Step 4 Set a period for the WiFi networks to be disabled, which is **22:00~07:00** in this example.

Step 5 Set the days when the function works, which is **Every Day** in this example.

Step 6 Click **Save**.



The screenshot shows a web interface window titled "WiFi Schedule" with a close button (X) in the top right corner. Inside the window, there is a toggle switch for "WiFi Schedule" which is currently turned on (green). Below this, the "Turn Off During:" section shows a time range of 22:00 to 07:00, with each value in a separate dropdown menu. Underneath, the "In:" section has two radio buttons: "Every Day" (which is selected) and "Specified Day". Below the radio buttons, there are seven checkboxes for the days of the week: Mon., Tue., Wed., Thur., Fri., Sat., and Sun., all of which are checked. At the bottom center of the window is a green "Save" button.

---End

When completing the configurations, the WiFi networks will be disabled from 10 pm to 7 am every day.

4.3 Channel & bandwidth

In this section, you can change network mode, WiFi channel, and WiFi bandwidth of 2.4 GHz and 5 GHz WiFi networks.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **WiFi Settings > Channel & Bandwidth**.

**TIP**

In order not to influence the wireless performance, it is recommended to maintain the default settings on this page without professional instructions.

Channel & Bandwidth

2.4 GHz Network

Network Mode:

802.11b/g/n/ac/ax Mixe

▼

WiFi Channel:

Auto

▼

Current Channel:11

WiFi Bandwidth:

20/40

▼

Current Bandwidth:20MHz

5 GHz Network

Network Mode:

802.11a/n/ac/ax Mixed

▼

WiFi Channel:

Auto

▼

Current Channel:149

WiFi Bandwidth:

20/40/80

▼

Current Bandwidth:80MHz

Save

Parameter description

Parameter	Description
Network Mode	<p>Specifies various protocols adopted for wireless transmission.</p> <p>2.4 GHz WiFi network supports the 802.11b/g/n Mixed, 802.11b/g/n/ac Mixed and 802.11b/g/n/ac/ax Mixed modes.</p> <ul style="list-style-type: none"> • 802.11b/g/n Mixed: It indicates that devices compliant with the IEEE 802.11b or IEEE 802.11g protocol, and devices working at 2.4 GHz and compliant with the IEEE 802.11n can connect to the 2.4 GHz WiFi network of the router. • 802.11b/g/n/ac Mixed: It indicates that devices compliant with the IEEE 802.11b or IEEE 802.11g protocol, and devices working at 2.4 GHz and compliant with the IEEE 802.11n or IEEE 802.11 ac protocol can connect to the 2.4 GHz WiFi network of the router. • 802.11b/g/n/ac/ax Mixed: It indicates that devices compliant with the IEEE 802.11b or IEEE 802.11g protocol, and devices working at 2.4 GHz and compliant with the IEEE 802.11n, IEEE 802.11ac or IEEE 802.11ax protocol can connect to the 2.4 GHz WiFi network of the router.
	<p>5 GHz WiFi network supports the 802.11a/n Mixed, 802.11a/n/ac Mixed and 802.11a/n/ac/ax Mixed modes.</p> <ul style="list-style-type: none"> • 802.11a/n Mixed: It indicates that devices complaint with the IEEE 802.11a protocol, and devices working at 5 GHz and compliant with the IEEE 802.11n can connect to the router. • 802.11a/n/ac Mixed: It indicates that devices compliant with the IEEE 802.11a protocol, and devices working at 5 GHz and compliant with the IEEE 802.11n or IEEE 802.11ac protocol can connect to the router. • 802.11a/n/ac/ax Mixed: It indicates that devices compliant with the IEEE 802.11a protocol, and devices working at 5 GHz and compliant with the IEEE 802.11n, IEEE 802.11ac or IEEE 802.11ax protocol can connect to the router.
WiFi Channel	<p>Specifies the channel in which the WiFi network works.</p> <p>By default, the wireless channel is Auto, which indicates that the router selects a channel for the WiFi network automatically. You are recommended to choose a channel with less interference for better wireless transmission efficiency. You can use a third-party tool to scan the WiFi signals nearby to understand the channel usage situations.</p>
WiFi Bandwidth	<p>Specifies the bandwidth of the wireless channel of a WiFi network. Please change the default settings only when necessary.</p> <ul style="list-style-type: none"> • 20: It indicates that the channel bandwidth used by the router is 20 MHz. • 40: It indicates that the channel bandwidth used by the router is 40 MHz. • 20/40: It specifies that a router can switch its channel bandwidth between 20 MHz and 40 MHz based on the ambient environment. This option is available only at 2.4 GHz. • 80: It indicates that the channel bandwidth used by the router is 80 MHz. This option is available only at 5 GHz. • 20/40/80: It specifies that a router can switch its channel bandwidth among 20 MHz, 40 MHz, and 80 MHz based on the ambient environment. This option is available only at 5 GHz.

4.4 Transmit power

In this module, you can adjust the wall-penetration capability and wireless coverage of the router by setting the transmit power.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **WiFi Settings > Transmit Power**.

Transmit Power

2.4 GHz Signal Strength: ☐ Energy Saving ☐ Medium ☒ High

5 GHz Signal Strength: ☐ Energy Saving ☐ Medium ☒ High

Save

Parameter	Description
Signal Strength	<p>Specifies the mode of signal strength. The default mode is High.</p> <ul style="list-style-type: none"> • Energy Saving: It is typically used to meet wireless coverage requirements in small area or barrier-free environments and intended to reduce energy consumption. • Medium: It is typically used to meet wireless coverage requirements in medium-area or less-obstacle environments. • High: It is typically used to meet wireless coverage requirements in large or multi-barrier environments. <p> TIP</p> <p>It is recommended to choose the Energy Saving mode if the internet experience is satisfactory enough under this mode.</p>

4.5 WPS

4.5.1 Overview

The WPS function enables WiFi-enabled devices, such as smartphones, to connect to WiFi networks of the router without entering the password.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **WiFi Settings > WPS**.



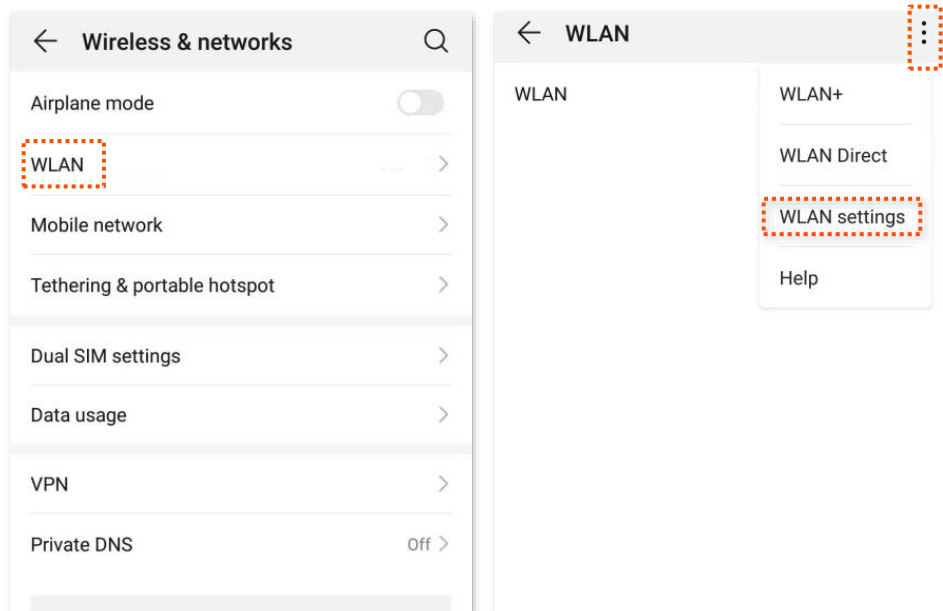
- This function is only applicable to WPS-enabled WiFi devices.
- WiFi networks encrypted with WPA3 cannot be connected through WPS.

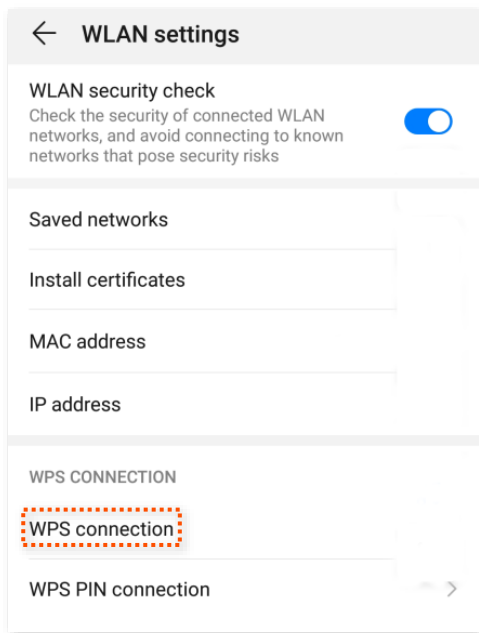
4.5.2 Connect devices to the WiFi network using the WPS button

Step 1 Find the **WPS** button on the rear panel of the router, and hold it down for 1 to 3 seconds. The LED indicator blinks fast.

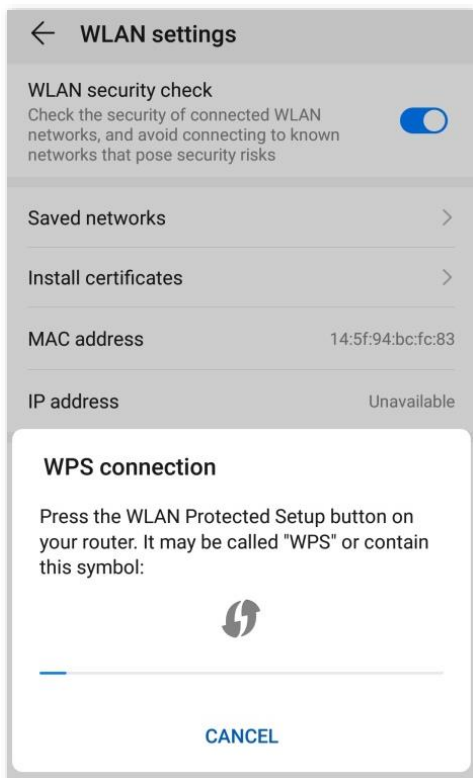
Step 2 Configure the WPS function on your WiFi-enabled devices **within 2 minutes**. Configurations on various devices may differ (Example: HUAWEI P10).

1. Find **Settings** on the phone.
2. Choose **WLAN**.
3. Tap **:**, and choose **WLAN settings**.



4. Choose WPS connection.**---End**

Wait a moment until the WPS negotiation is completed, and the phone is connected to the WiFi network.

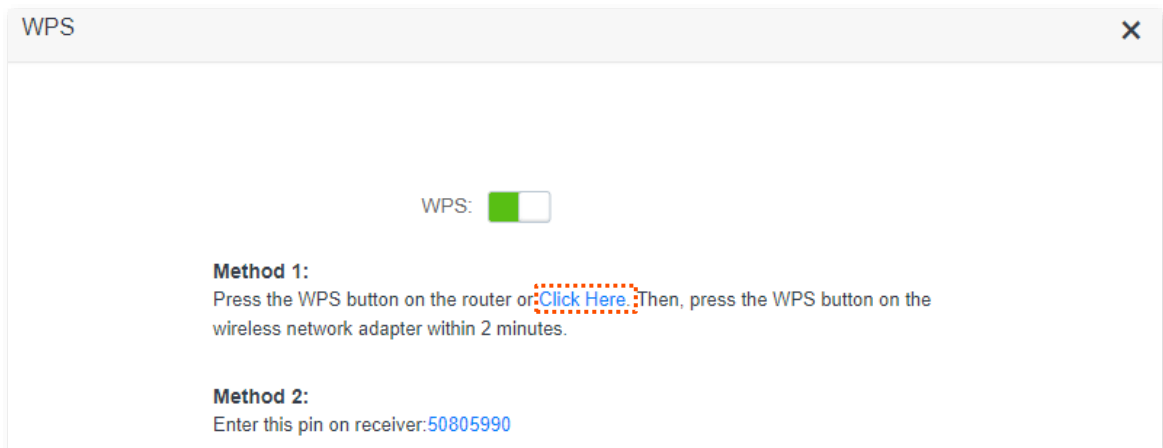


4.5.3 Connect devices to the WiFi network through the web UI of the router


Step 1 [Log in to the web UI](#) of the router.

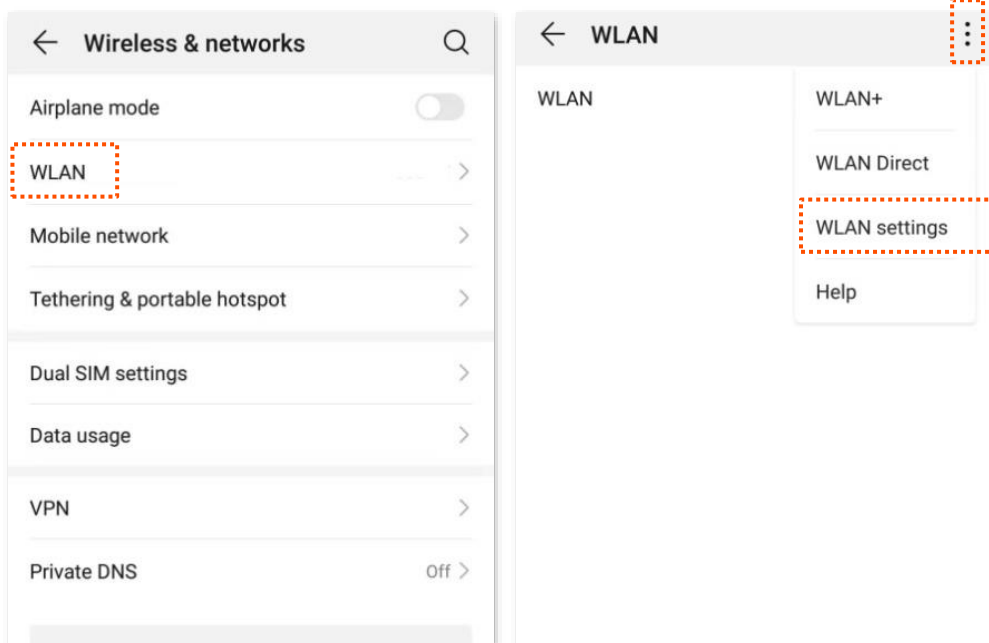
Step 2 Navigate to **WiFi Settings > WPS**.

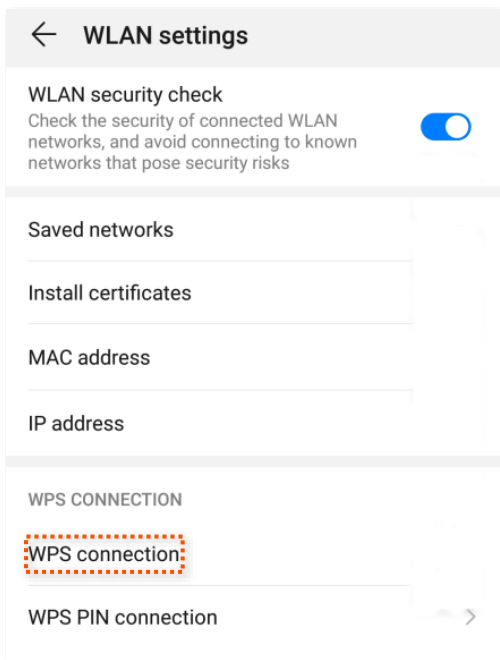
Step 3 Click **Click Here** under **Method 1**.



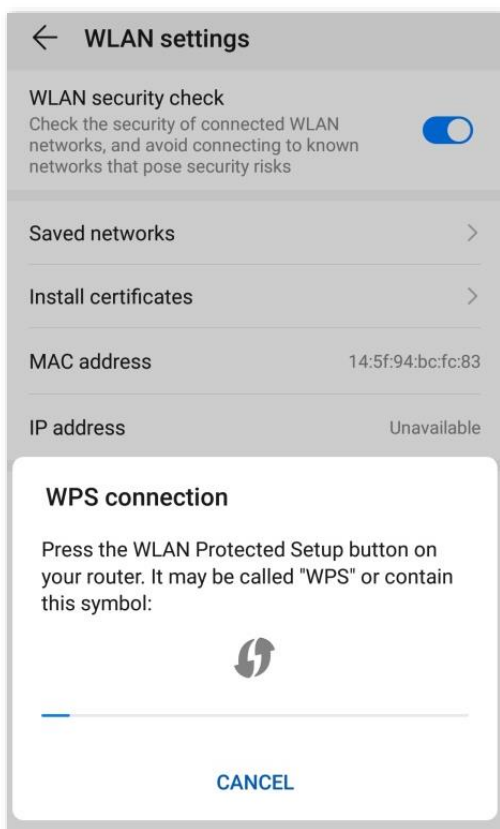
Step 4 Configure the WPS function on your WiFi-enabled devices **within 2 minutes**. Configurations on various devices may differ (Example: HUAWEI P10).

1. Find **WLAN** settings on the phone.
2. Tap , and choose **WLAN settings**.



3. Choose WPS connection.**---End**

Wait a moment until the WPS negotiation is completed, and the phone is connected to the WiFi network.



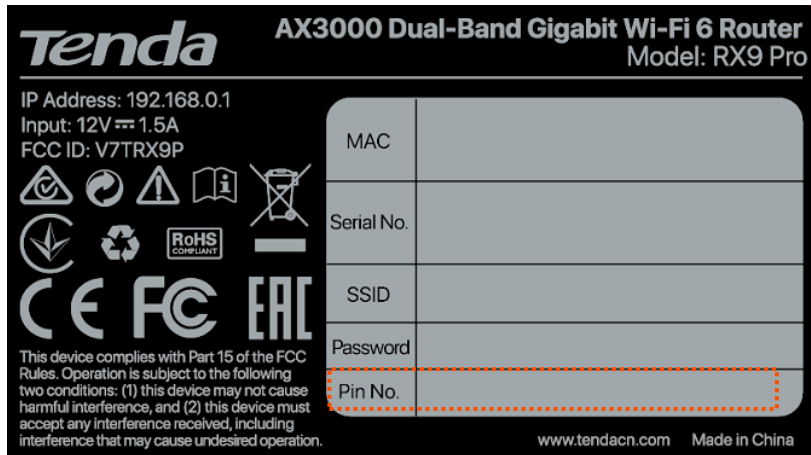
4.5.4 Connect devices to the WiFi network using the PIN code of the router

The router supports WPS connection by entering the PIN code on WiFi-enabled devices, which is usually used on WiFi network adapters. Please refer to the user guide of the WiFi network adapter for configuration details.

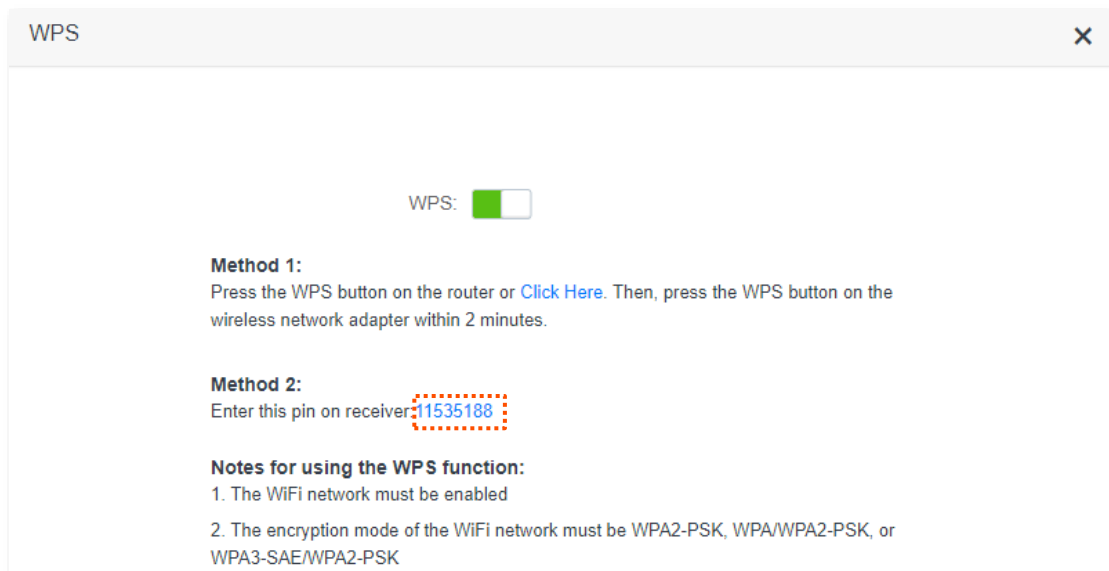
Configuring procedure:

Step 1 Find the PIN code of the router.

You can find the PIN code on the label on the bottom panel of the router.



You can also [log in to the web UI](#) of the router, and navigate to **WiFi Settings > WPS**. The PIN code is shown under **Method 2**.



Step 2 Enter the PIN code on the WiFi-enabled device that supports WPS connection using the PIN code.

---End

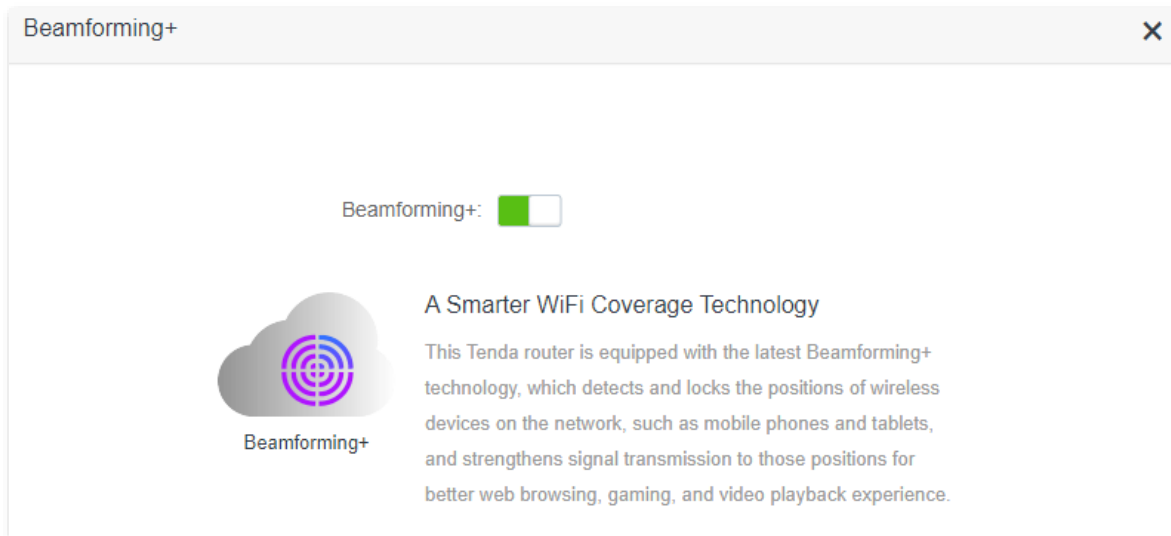
Wait a moment until the WPS negotiation is completed, and the WiFi-enabled device is connected to the WiFi network.

4.6 Beamforming+

Beamforming+ is a radio wave technology written into the IEEE 802.11ac standard. Traditionally, the router broadcasts the data in all directions when broadcasting a WiFi signal. With beamforming, the router transmits radio signals in the direction of the client, thus creating stronger, faster and more reliable wireless communication.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **WiFi Settings > Beamforming+**.

This function is enabled by default.



The following figure shows the wireless transmission when Beamforming+ is enabled.



The following figure shows the wireless transmission when Beamforming+ is disabled.



4.7 AP mode

When you have a smart home gateway which only provides wired internet access, you can set the router to work in AP mode to provide wireless coverage.



When the router is set to AP mode:

- Every physical port can be used as a LAN port.
- The LAN IP address of the router will be changed. Please log in to web UI of the router by visiting **tendawifi.com**.
- Functions, such as bandwidth control and virtual server will be unavailable. Refer to the web UI for available functions.

Configuring procedure:



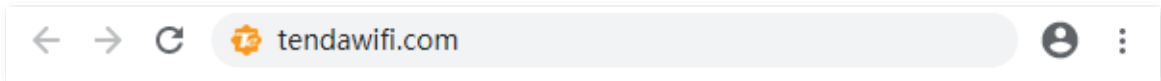
If you have finished the quick setup wizard before, start a web browser and visit **tendawifi.com** on a connected device, then start from **Step 3**.

- Step 1** Power on the router. Connect a computer to a LAN port of the router, or connect your smartphone to the WiFi network of the router.



- Step 2** Log in to the web UI of the router.

1. Launch a web browser on the device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

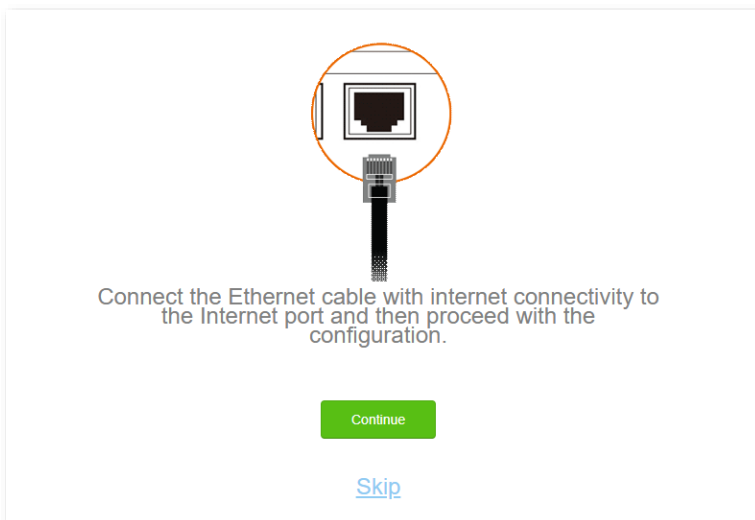


If you have finished the quick setup wizard before, launch a web browser and visit **tendawifi.com** or **192.168.0.1** on a connected device, then start from [Step 3.](#)

2. Click Start.



3. Click Skip.



4. Do not set login and WiFi password now by ticking **Not Required**, and click **Next**.

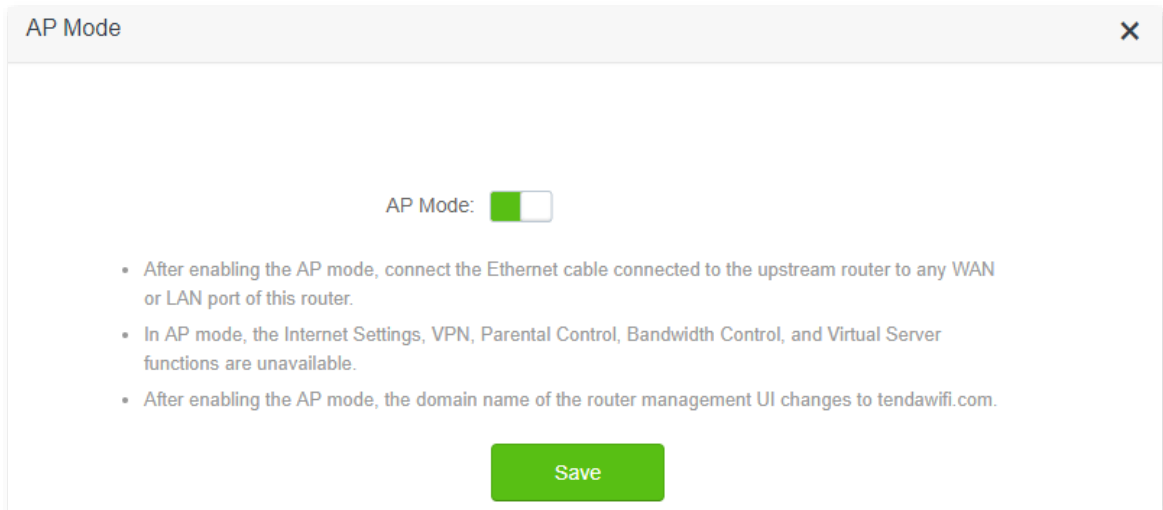
The screenshot shows the 'WiFi Settings' interface. At the top, the network name 'Tenda_2607E8' is entered. Below it, the 'WiFi password of 8-32 characters' field is set to 'Not Required'. A checkbox option 'Set the WiFi password as the login password of the admin account.' is present. The 'Login password of 5-32 characters' field is also set to 'Not Required'. A green 'Next' button is at the bottom.

5. Click **Ignore**.

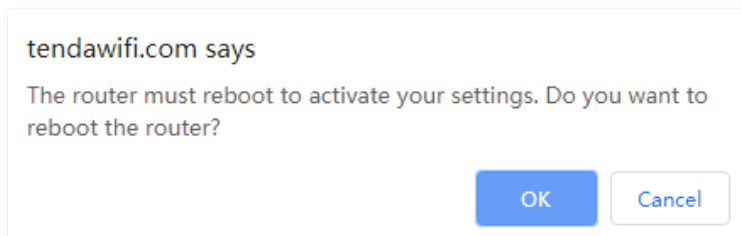
The screenshot shows a 'Tips' dialog box with a close button (X). The text inside reads: 'Your WiFi network has no password. To ensure the security of your WiFi network, set a WiFi password.' At the bottom, there are two buttons: 'Set Now' (green) and 'Ignore' (grey).

Step 3 Set the router to AP mode.

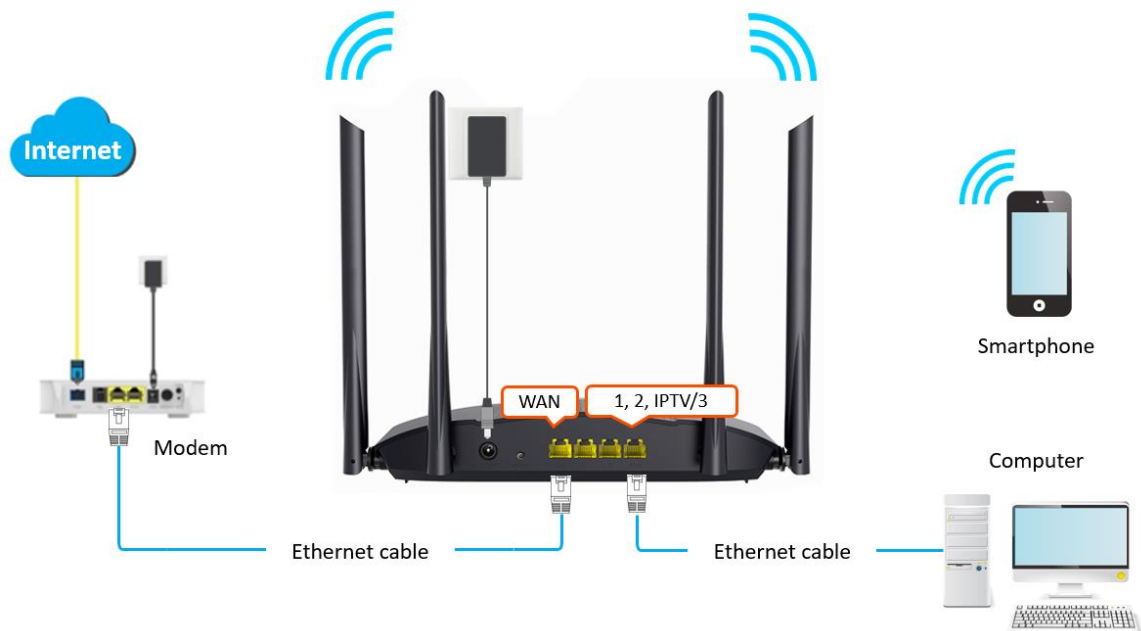
1. Navigate to **WiFi Settings > AP Mode**.
2. Enable **AP Mode**.
3. Click **Save**.



Step 4 Click **OK**, and wait for the router to reboot.



Step 5 Connect the upstream device, such as a gateway, to any ports of the router.



---End

Log in to the web UI of the router again, and navigate to **Internet Status** to check if the AP mode is configured successfully as shown below.



If there is another network device with the same login domain name (tendawifi.com) as the router, log in to the upstream router and find the IP address obtained by the new router in the client list. Then you can log in to the web UI of the router by visiting the IP address.

To access the internet, connect your computer to a physical port, or connect your smartphone to the WiFi network.

You can find the WiFi name and password on the **WiFi Settings > WiFi Name & Password** page. If the network is not encrypted, you can also set a WiFi password on this page for security.

WiFi Name & Password

Unify 2.4 GHz & 5 GHz ☒

Enable WiFi Network ☒

WiFi Name: ☐ Hide

Encryption Mode: WPA/WPA2-PSK (recommend ▼)

WiFi Password:

Save



If you cannot access the internet, try the following solutions:

- Ensure that the original router is connected to the internet successfully.
 - Ensure that your WiFi-enabled devices are connected to the correct WiFi network of the new router.
 - If the computer connected to the router cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS server automatically.
-

5 Guest network

5.1 Overview

In this module, you can enable or disable the guest network function and change the WiFi name and password of the guest network.

A guest network can be set up with a shared bandwidth limit for visitors to access the internet, and is isolated from the main network. It protects the security of the main network and ensures the bandwidth of your main network.

To access the configuration page, [log in to the web UI](#) of the router and navigate to the **Guest Network**. This function is disabled by default.

Guest Network

English

Guest Network: ☐

2.4 GHz WiFi Name:

5 GHz WiFi Name:

Guest Network Password:

Validity:

Shared Bandwidth for Guests: Mbps

Save

Parameter description

Parameter	Description
Guest Network	Used to enable or disable the guest network function.
2.4 GHz WiFi Name	Specifies the WiFi name of the router's guest network. By default, Tenda_VIP is for the 2.4 GHz WiFi network and Tenda_VIP_5G for the 5 GHz WiFi network.
5 GHz WiFi Name	You can change the SSIDs (WiFi names) as required. To distinguish the guest network from the main network, you are recommended to set different WiFi network names.

Parameter	Description
Guest Network Password	Specifies the password for the two guest networks of the router.
Validity	Specifies the validity of the guest networks. The guest network function will be disabled automatically out of the validity period.
Shared Bandwidth for Guests	Allows you to specify the maximum upload and download speed for all devices connected to the guest networks. By default, the bandwidth is not limited.

5.2 An example of configuring the guest network

Scenario: A group of friends are going to visit your home and stay for about 8 hours.

Goal: Prevent the use of WiFi network by guests from affecting the network speed of your computer for work purposes.

Solution: You can configure the guest network function and let your guests to use the guest networks.

Assume that the parameters you are going to set for the guest WiFi network:

- WiFi names for 2.4 GHz and 5 GHz networks: John and John _5G.
- WiFi password for 2.4 GHz and 5 GHz networks: Tenda+245.
- The shared bandwidth for guests: 2 Mbps.

Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Guest Network**.

Step 3 Enable the **Guest Network**.

Step 4 Set the **2.4 GHz WiFi Name**, which is **John** in this example.

Step 5 Set the **5 GHz WiFi Name**, which is **John _5G** in this example.

Step 6 Set **Guest Network Password**, which is **Tenda+245** in this example.

Step 7 Select a validity time from the **Validity** drop-down box, which is **8 hours** in this example.

Step 8 Set the bandwidth in the **Shared Bandwidth for Guests** drop-down box, which is **2** in this example.

Step 9 Click **Save**.

Guest Network

English | Exit

Guest Network: ☒

2.4 GHz WiFi Name:

5 GHz WiFi Name:

Guest Network Password:

Validity:

Shared Bandwidth for Guests: Mbps

Save

---End





During the 8 hours after the configuration, guests can connect their WiFi-enabled devices, such as smartphones, to **John** or **John_5G** to access the internet and enjoy the shared bandwidth of 2 Mbps.

6 Parental control




6.1 Overview

On the parental control page, you can view the information of online devices and configure their internet access options.


To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Parental Control**.

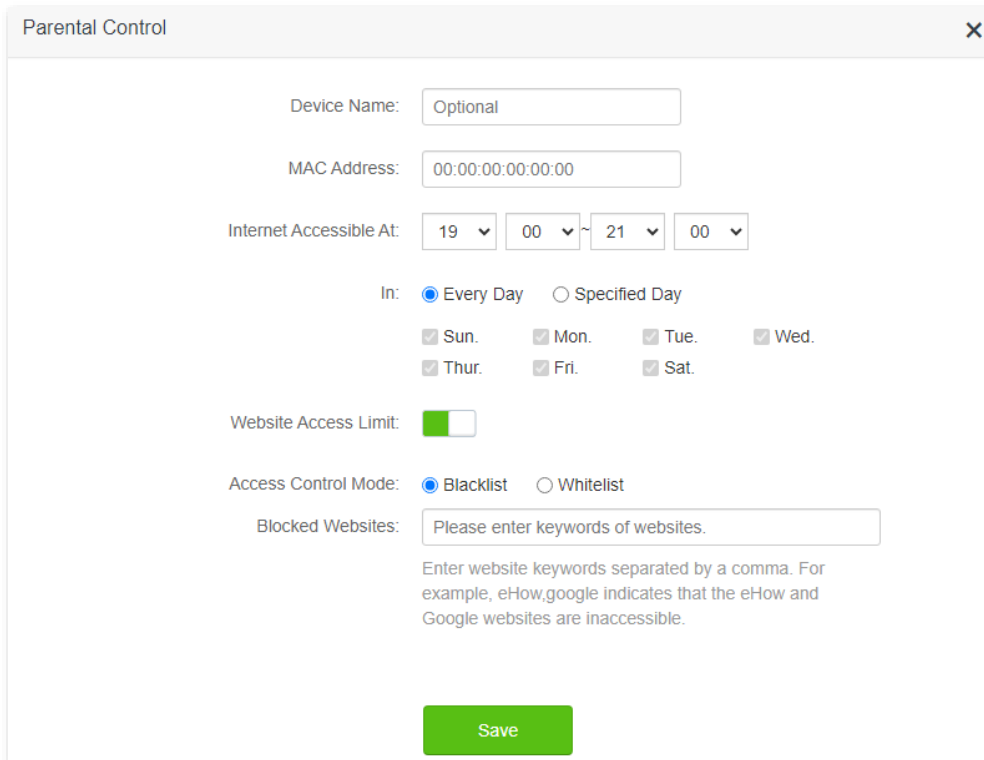
Parental Control			
		English ▾	Exit
Device Name	MAC Address	Uptime	Operation
 DESKTOP-R8R8OTU 192.168.0.186	ec:3d:fd:fe:0e:bb	6 hour(s) 58 min 30 s	
 Unknown 192.168.0.107	0e:60:99:65:71:4c	16 s	
<div>+New</div>			

Parameter description

Parameter	Description
Device Name	Specifies the name of the online device.
MAC Address	Specifies the MAC address of the online device.
Uptime	Specifies the online duration of the device.
Operation	Click  to configure a parental control rule for the device. After you have configured the parental control rule for the device, there should be a  or  button, which is used to enable or disable the configured rule.
+New	Click <div>+New</div> to add parental control rules for devices that are not connected to the router at the time.

6.2 Configure the parental control rule

Click  or **+New** to edit or add a parental control rule. **+New** is used for illustration here.



Parameter description

Parameter	Description
Device Name	Specifies the name of the device that the parental control rule applies to.
MAC Address	Specifies the MAC address of the device that the parental control rule applies to.
Internet Accessible At	Specifies the period during which the device can access the internet.
In	Specifies the days when the rule takes effect.
Website Access Limit	Used to enable or disable the website access limit function.
Access Control Mode	<p>When the website access limit function is enabled, there are two access control modes available.</p> <ul style="list-style-type: none"> • Blacklist: The device is blocked from accessing the websites specified in the rule during the specified period, but can access other websites. The device cannot access the internet out of the specified period. • Whitelist: The device is allowed to access the websites specified in the rule during the specified period, but cannot access other websites. The device cannot access the internet out of the specified period.
Blocked Websites	Specify the websites that the device is blocked from accessing or allowed to access during the specified period.
Unblocked Websites	

6.3 An example of adding parental control rules

Scenario: The final exam for your daughter is approaching and you want to configure her internet access through the router.

Goal: Your kid cannot access websites, such as Facebook, Twitter, Youtube and Instagram, during 8:00 to 22:00 on weekends using the computer in her room, and cannot access the internet from 22:00 to 8:00.

Solution: You can configure the parental control function to reach the goal.

Configuring procedure:





Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Parental Control**.

Step 3 Find the device to which the rule applies, and click .



If the device to which the rule applies is not online at the time, you can click **+New** to add a parental control rule for the device.

Parental Control			
		English ▾	Exit
Device Name	MAC Address	Uptime	Operation
 Kid's desktop 192.168.0.186	ec:3d:fd:fe:0e:bb	7 hour(s) 3 min 9 s	
 Unknown 192.168.0.107	0e:60:99:65:71:4c	5 s	
			+New

Step 4 Specify the period when the target websites cannot be accessed, which is **8:00 ~ 22:00** in this example.

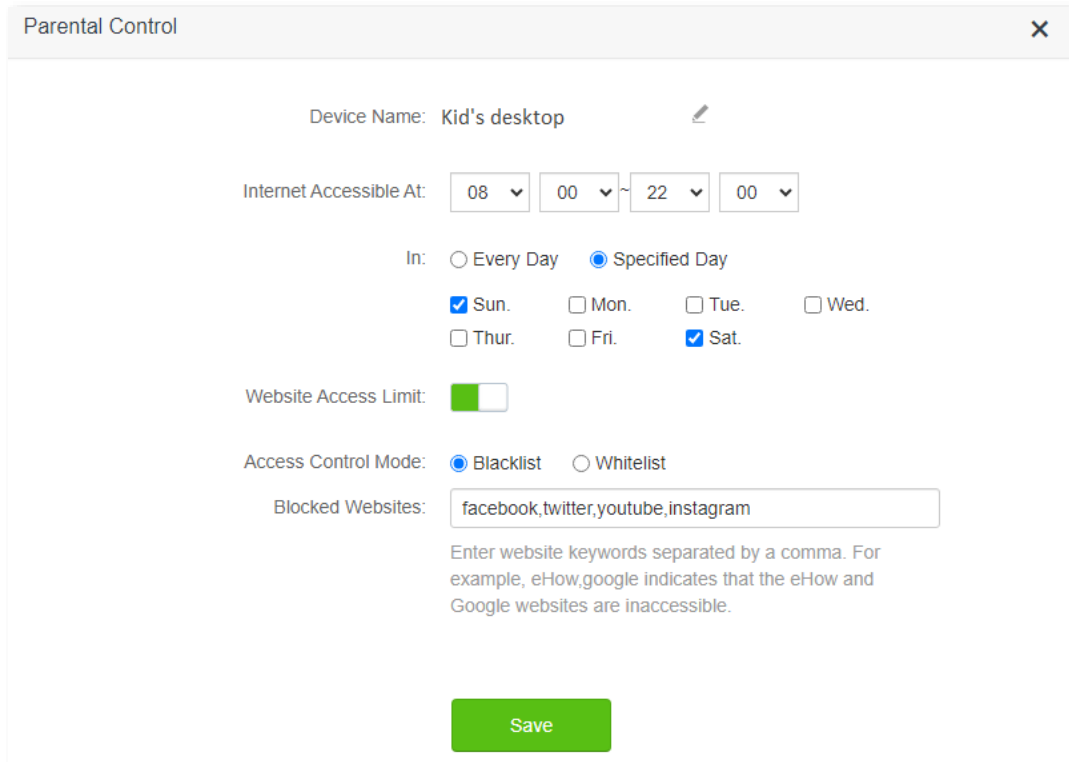
Step 5 Choose **Specified Day**, and tick the days when the rule is applied, which are **Sun.** and **Sat.** in this example.

Step 6 Enable **Website Access Limit**.

Step 7 Choose **Blacklist**.

Step 8 Set **Blocked Websites**, which is **facebook,twitter,youtube,instagram**.

Step 9 Click **Save**.



The screenshot shows a 'Parental Control' window with the following settings:

- Device Name:** Kid's desktop
- Internet Accessible At:** 08:00 ~ 22:00
- In:** ☒ Every Day, ☒ Specified Day
- Specified Day:** ☒ Sun., ☐ Mon., ☐ Tue., ☐ Wed., ☐ Thur., ☐ Fri., ☒ Sat.
- Website Access Limit:** A green slider bar.
- Access Control Mode:** ☒ Blacklist, ☐ Whitelist
- Blocked Websites:** facebook,twitter,youtube,instagram
- Save:** A green button at the bottom.

Below the 'Blocked Websites' field, there is a note: 'Enter website keywords separated by a comma. For example, eHow,google indicates that the eHow and Google websites are inaccessible.'

---End

After the configuration is completed, your kid can access any websites except for Facebook, Twitter, Youtube and Instagram from 8:00 to 22:00 on weekends, and she cannot access the internet at all between 22:00 to 8:00 on weekends.

7

IPv6

This router supports IPv4 and IPv6 dual stack protocols. In the IPv6 part, you can:

- [Perform IPv6 WAN settings](#)
- [Change IPv6 LAN settings](#)

The router can access the IPv6 network of ISPs through three connection types. Choose the connection type by referring to the following chart.

Scenario	Connection Type
<ul style="list-style-type: none"> • The ISP does not provide any PPPoEv6 user name and password. • The ISP does not provide information about IPv6 address. • You have a router that can access IPv6 network. 	DHCPv6
IPv6 service is included in the PPPoE user name and password.	PPPoEv6
The ISP provides you with a set of information including IPv6 address, subnet mask, default gateway and DNS server.	Static IPv6 address

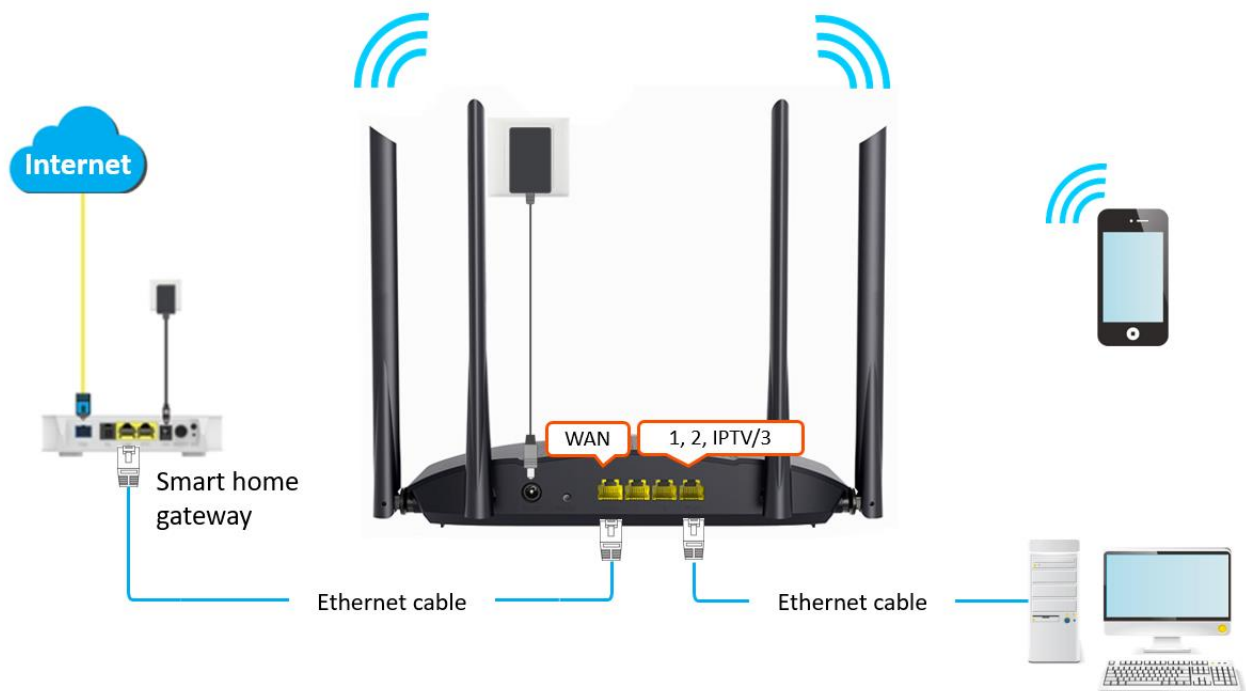


Before configuring the IPv6 function, please ensure that you are within the coverage of IPv6 network and already subscribe to the IPv6 internet service. Contact your ISP for any doubt about it.

7.1 DHCPv6

DHCPv6 enables the router to obtain IPv6 address from DHCPv6 server to access the internet, which is applicable in the following scenarios.

- The ISP does not provide any PPPoEv6 user name and password.
- The ISP does not provide information about IPv6 address.
- You have a router that can access IPv6 network.



Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **IPv6**.
- Step 3** Enable the **IPv6** function.
- Step 4** Set the **Connection Type** to **DHCPv6**.
- Step 5** Click **Save**.

IPv6 ☒

IPv6 WAN Settings

Connection Type DHCPv6

Save

---End

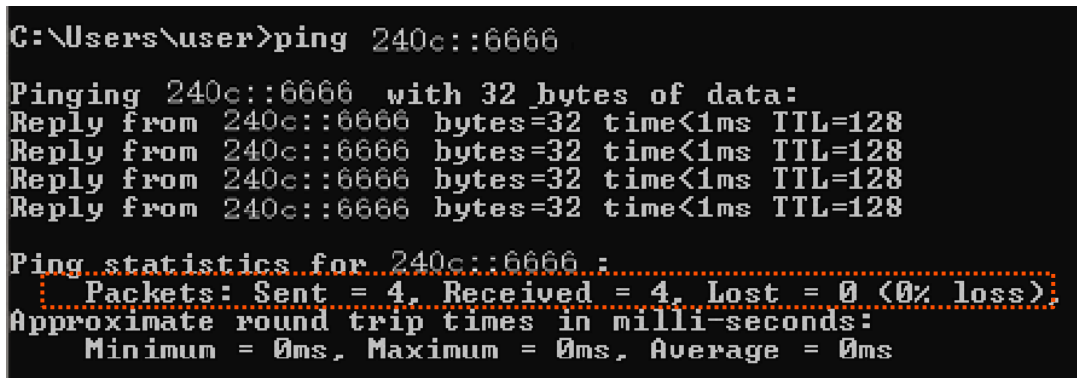
IPv6 network test:**Verification:**

You can ping an IPv6 website (240c::6666 for example) to check whether the router accesses the IPv6 network successfully. The following steps are for your reference.

- Step 1** On a computer connected to the router, press **Windows + R** to open the **Run** dialog box.
- Step 2** Type **cmd** and then click **OK** to open a regular Command Prompt.
- Step 3** Enter ping **240c::6666** and press **Enter**.

---End

As shown in the following figure, if the number of packets received is not 0, the router accesses the IPv6 network successfully.



```
C:\Users\user>ping 240c::6666

Pinging 240c::6666 with 32 bytes of data:
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128

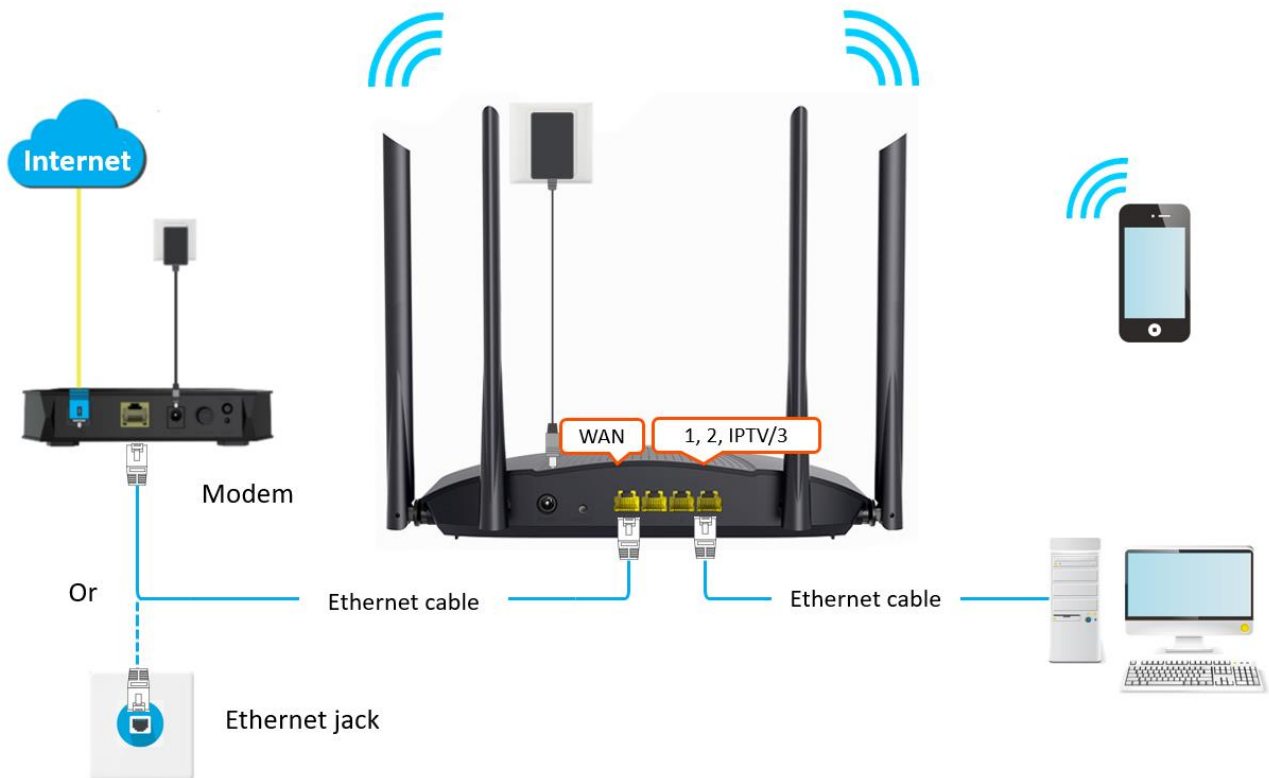
Ping statistics for 240c::6666:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If the IPv6 network test fails, try the following solutions:

- Ensure that clients connected to the router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help.

7.2 PPPoEv6

If your ISP provides you with the PPPoE user name and password with IPv6 service, you can choose PPPoEv6 to access the internet.



Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **IPv6**.
- Step 3** Enable the **IPv6** function.
- Step 4** Set the **Connection Type** to **PPPoEv6**.
- Step 5** Enter the **PPPoE Username** and **PPPoE Password**.
- Step 6** Click **Save**.

IPv6 ☒

IPv6 WAN Settings

Connection Type PPPoEv6 ▼

PPPoE Username

PPPoE Password

Save

---End

Parameter description

Parameter	Description
PPPoE Username	Specify the PPPoE user name and password provided by your ISP.
PPPoE Password	IPv4 and IPv6 services share the same PPPoE account.



TIP

IPv6 network test:

You can ping an IPv6 website (240c::6666 for example) to check whether the router accesses the IPv6 network successfully. The following steps are for your reference.

Step 1 On a computer connected to the router, press **Windows + R** to open the **Run** dialog box.

Step 2 Type **cmd** and then click **OK** to open a regular Command Prompt.

Step 3 Enter ping **240c::6666** and press **Enter**.

---End

As shown in the following figure, if the number of packets received is not 0, the router accesses the IPv6 network successfully.

```
C:\Users\user>ping 240c::6666

Pinging 240c::6666 with 32 bytes of data:
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128

Ping statistics for 240c::6666:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If the IPv6 network test fails, try the following solutions:

- Ensure that clients connected to the router obtain their IPv6 address through PPPoEv6.
- Consult your ISP for help.

7.3 Static IPv6 Address


When your ISP provides you with information including IPv6 address, subnet mask, default gateway and DNS server, you can choose this connection type to access the internet with IPv6.

Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **IPv6**.
- Step 3** Enable the **IPv6** function.
- Step 4** Set the **Connection Type** to **Static IPv6 Address**.
- Step 5** Enter the required parameters under IPv6 WAN settings.
- Step 6** Click **Save**.

---End

Parameter description

Parameter	Description
IPv6 Address	
Default IPv6 Gateway	Specify the fixed IP address information provided by your ISP.
Primary IPv6 DNS	 TIP If your ISP only provides one DNS address, leave the secondary IPv6 DNS blank.
Secondary IPv6 DNS	

IPv6 network test:

You can ping an IPv6 website (240c::6666 for example) to check whether the router accesses the IPv6 network successfully. The following steps are for your reference.

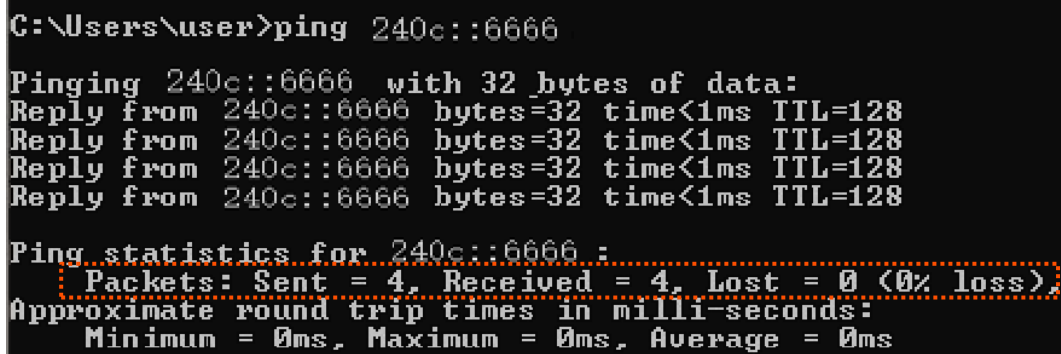
Step 1 On a computer connected to the router, press **Windows + R** to open the **Run** dialog box.

Step 2 Type **cmd** and then click **OK** to open a regular Command Prompt.

Step 3 Enter ping **240c::6666** and press **Enter**.

---End

As shown in the following figure, if the number of packets received is not 0, the router accesses the IPv6 network successfully.



```
C:\Users\user>ping 240c::6666

Pinging 240c::6666 with 32 bytes of data:
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128
Reply from 240c::6666 bytes=32 time<1ms TTL=128

Ping statistics for 240c::6666 :
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If the IPv6 network test fails, try the following solutions:

- Ensure that you have entered the correct WAN IPv6 address.
- Ensure that clients connected to the router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help.

8





Advanced settings

8.1 Bandwidth control


8.1.1 Overview

By configuring this function, you can limit the upload and download speed of devices connected to the router and allocate the bandwidth reasonably.

To access the configuration page, [log in to the web UI](#) of the router and navigate to **Advanced Settings > Bandwidth Control**.

Bandwidth Control ✕				
Device Name		Upload Speed	Download Speed	Upload Limit Download Limit
 DESKTOP-5LII2L5 192.168.0.136		0.0KB/s	0.0KB/s	Unlimited ▾ Unlimited ▾
 Daughter's iPhone 192.168.0.174		0.0KB/s	0.0KB/s	Unlimited ▾ Unlimited ▾

Parameter description

Parameter	Description
Device Name	Specifies the name and IP address of the device. You can click  to change the name of the device.
Upload Speed	Specify the current upload and download speed of the device.
Download Speed	
Upload Limit	Specify the upload and download speed limit for the device. You can click the drop-down box to choose a number or set it manually.
Download Limit	

8.1.2 Set the upload and download speed limit for users

Scenario: You want to allocate bandwidth equally among connected devices and enable all connected devices to enjoy smooth 720p videos.

Solution: Configure the bandwidth control function to meet the requirement.







Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 1 Navigate to **Advanced Settings > Bandwidth Control**.

Step 2 Target the devices to be controlled, and set the **Download Limit** to **4.0 Mbps(For HD Video)**.

Step 3 Click **Save**.

Bandwidth Control				
Device Name		Upload Speed	Download Speed	
 DESKTOP-5LII2L5 192.168.0.136		0.0KB/s	0.0KB/s	Unlimited 
 Daughter's iPhone 192.168.0.174		0.0KB/s	0.0KB/s	Unlimited 

---End

After the configuration, the highest speed for the device is 4 Mbps (or 512 KB/s) and the requirement of 720p videos can be satisfied.

8.2 IPTV

IPTV settings on this page may differ with product models. Refer to the corresponding category for guidance.

8.2.1 Overview

IPTV is the technology integrating internet, multimedia, telecommunication and many other technologies, providing interactive services, including digital TV, to family users by internet broadband lines.

You can set the multicast and STB functions here.

- **Multicast:** If you want to watch multicast videos from the WAN side of the router on your computer, you can enable the multicast function of the router.
- **STB (Set-Top Box):** If the IPTV service is included in your broadband service, you can enjoy both internet access through the router and rich IPTV contents with a set-top box when it is enabled.

To access the configuration page, [log in to the web UI](#) of the router and navigate to **Advanced Settings > IPTV**.

The IPTV function is disabled by default. When it is enabled, the page is shown below.

IPTV

Multicast:

STB:

Connect the IPTV STB to the IPTV port of the router.

VLAN:

Custom VLAN

VLAN for Uplink Packets	VLAN	Operation
		+New

Save

Parameter description

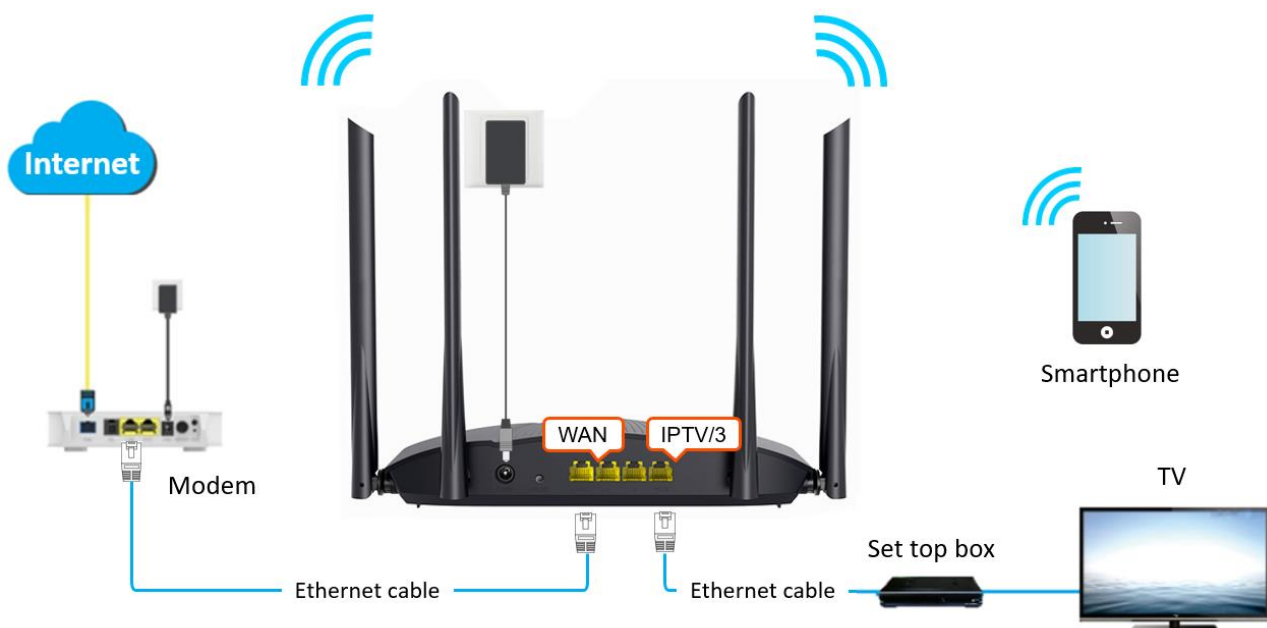
Parameter	Description
Multicast	Used to enable or disable the multicast function.
STB	Used to enable or disable the IPTV function of the router. When this function is enabled, the port IPTV/3 can be used only as an IPTV port and be connected to an IPTV set-top box.
VLAN	Specifies the VLAN ID of your IPTV service. By default, it is Custom VLAN , you need to obtain VLAN ID from your ISP when the IPTV service is available.
VLAN for Uplink Packets	Specifies the VALN for the uplink packets.
Operation	Click <input type="button" value="+New"/> to add the new VLAN ID.

8.2.2 Watch IPTV programs through the router

Scenario: The IPTV service is included in your broadband service. You have obtained the IPTV account and password from your ISP, but no VLAN information.

Goal: Watch IPTV programs through the router.

Solution: You can configure the IPTV function to reach the goal.

**Configuring procedure:****Step 1** Set your router.

1. [Log in to the web UI](#) of the router.
2. Navigate to **Advanced Settings > IPTV**.
3. Enable the **STB** function.

4. Enter the VLAN ID provided by your ISP.
5. Click **Save**.

IPTV

Multicast: ☐

STB: ☒

Connect the IPTV STB to the IPTV port of the router.

VLAN: Custom VLAN

VLAN for Uplink Packets	VLAN	Operation
	<input type="text"/>	<div>+New</div>

Save

Step 2 Configure the set-top box.

Use the IPTV user name and password to dial up on the set-top box.

---End

When completing the configurations, you can watch IPTV programs on your TV.

8.2.3 Watch multicast videos through the router

Scenario: You have the address of multicast videos.

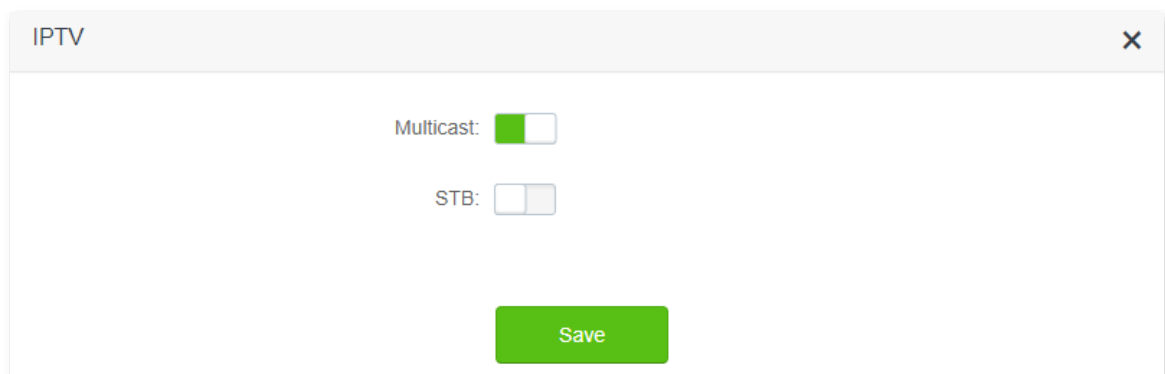
Goal: You can watch multicast videos.

Solution: You can configure the multicast function to reach the goal.



Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **Advanced Settings > IPTV**.
- Step 3** Enable the **Multicast** function.
- Step 4** Click **Save**.



---End

When completing the configurations, you can watch multicast videos on your terminal devices.

8.3 Tenda WiFi App

The router supports management through the **Tenda WiFi App**. With the App, you can:

- Manage your router within the LAN or through the internet.
- View and download resources on the USB storage device within the LAN and through the internet (available for routers with USB port).



To manage the router with **Tenda WiFi App**, follow the steps below (Example: iPhone).

Configuring procedure:

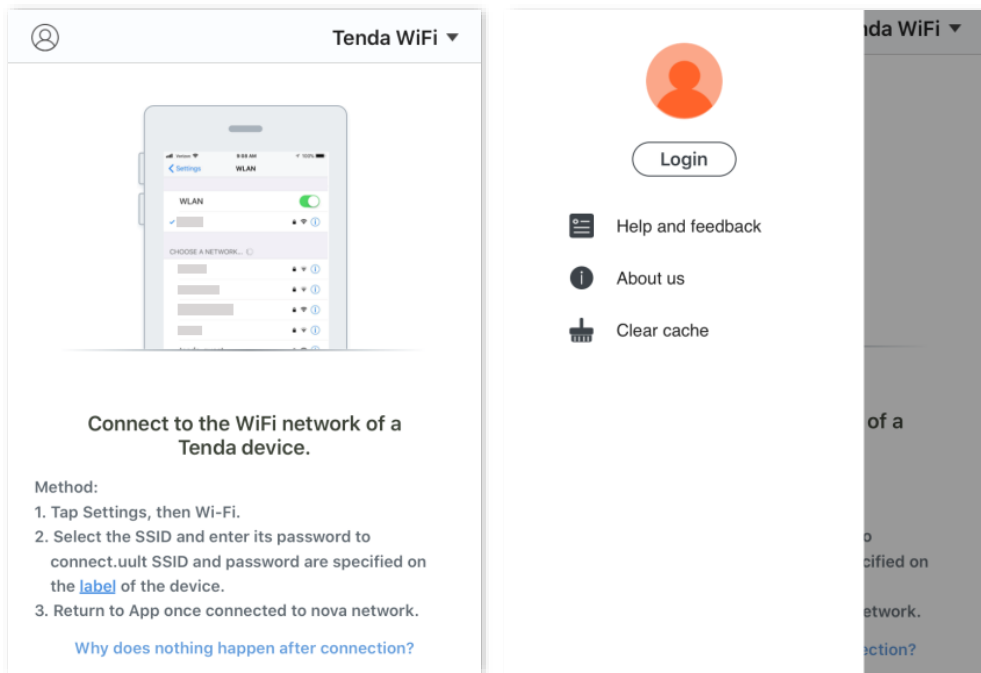
- Step 1** Go to the App Store and search for the **Tenda WiFi App**. Download and install it on your phone.



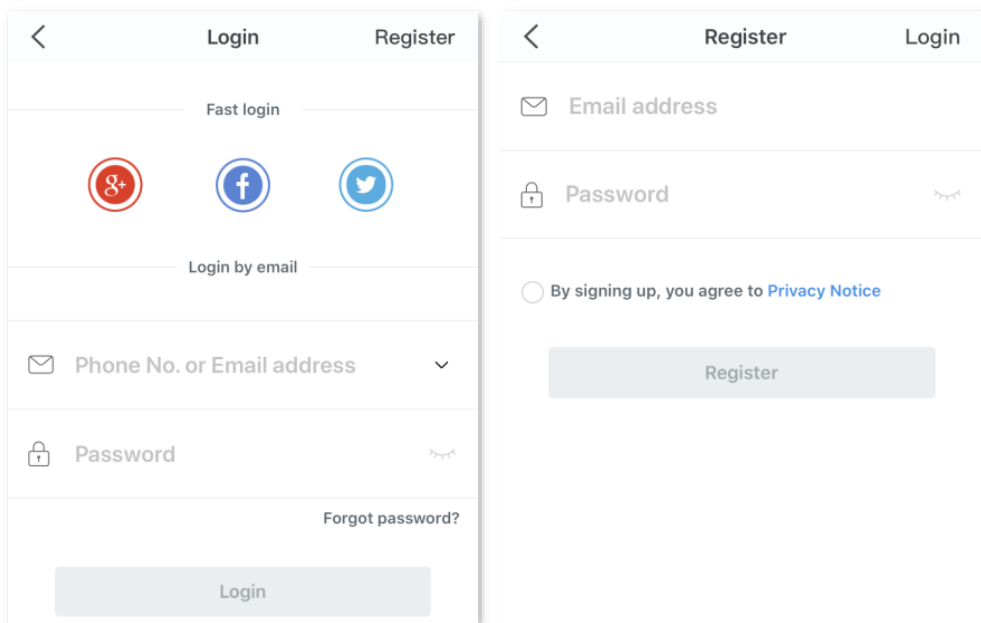
If you already have a **Tenda WiFi App** account or want to use the fast login approach, skip to **Step 3** and proceed with the settings.

- Step 2** Register an account in the Tenda WiFi App.

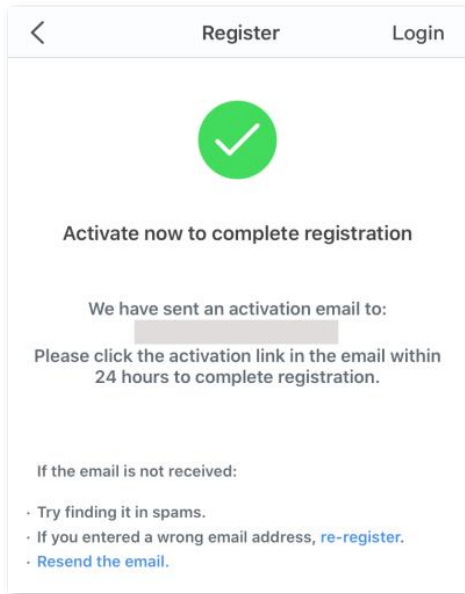
1. Run the **Tenda WiFi App**, tap the  at the top left corner and tap **Login**.



2. Tap **Register** at the top right corner, and register with an Email account.



3. Check the Email sent to your Email account and follow the instruction to finish the Email account confirmation process.
4. Click **Login** at the top right corner of the registration page.



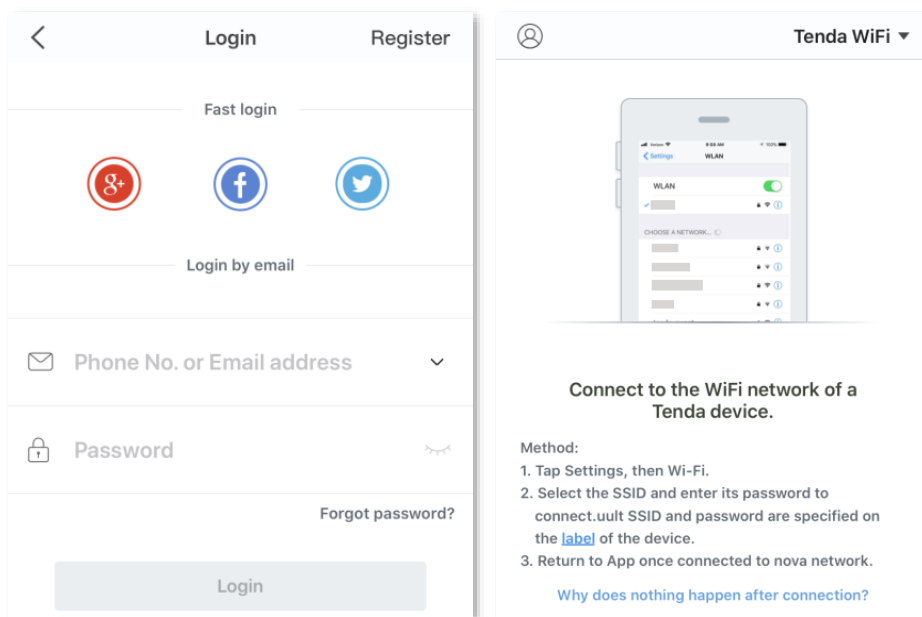
Step 3 Log in with the confirmed account.

Follow the instructions on the homepage of the **Tenda WiFi** App to add the router.



TIP

You can also choose to log in with your google, facebook and twitter account without registering a **Tenda WiFi** App account. Choose an option in **Fast login**.



Step 4 Bind your router with your smartphone.

1. [Log in to the web UI](#) of the router.
2. Navigate to **Advanced Settings > Tenda WiFi App**.
3. Enable **Manage with Tenda WiFi App**.
4. Enter an account registered in the **Tenda WiFi** App in **Cloud Account**.
5. Click **Save**.


Tenda WiFi App

Manage with Tenda WiFi App: ☒

ID: 727773263

Cloud Account:

Save



Scan to
download
Tenda WiFi
App.

---End

When completing the configurations, you can manage your router with **Tenda WiFi** App on your phone anywhere anytime through the internet.

8.4 Sleeping mode

When the sleeping mode function is enabled, the LED indicators of the router are turned off and the WiFi network is disabled during the specified period.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > Sleeping Mode**.

This function is disabled by default. When it is enabled, the page is shown as below.

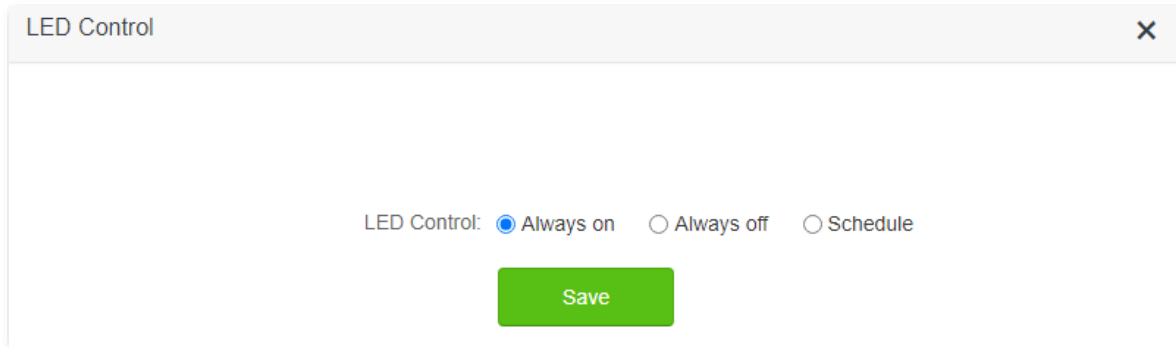
Parameter description

Parameter	Description
Sleeping Mode	Used to enable or disable the function. When the router is under sleeping mode and you want to use the WiFi network, use the Tenda WiFi App to wake up the router.
Sleeping Time	Specifies the period during which the router is under the sleeping mode.
Delay	Used to enable or disable the Delay function. <ul style="list-style-type: none"> • Ticked: The function is enabled. When the sleeping period approaches, if there is any user connected to the router and the traffic over the router's WAN port exceeds 3 KB/s within 30 minutes, the router will delay entering the sleeping mode. If there is any user connected to the router but the total traffic of users over the WAN port does not exceed 3 KB/s within 30 minutes, or there is no user connected to the router and the traffic over the router's WAN port is slower than 3 KB/s within 3 minutes, the router will enter the sleeping mode. • Unticked: The function is disabled. The router enters the sleeping mode during the sleeping time without delay.

8.5 LED control

With the LED control function, you can control the status of the LED indicators.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > LED Control**.

A screenshot of the 'LED Control' configuration window. The window has a title bar with 'LED Control' and a close button. The main area contains the text 'LED Control:' followed by three radio button options: 'Always on' (which is selected), 'Always off', and 'Schedule'. Below these options is a green 'Save' button.

LED Control: ☒ Always on ☐ Always off ☐ Schedule

Save

Parameter description

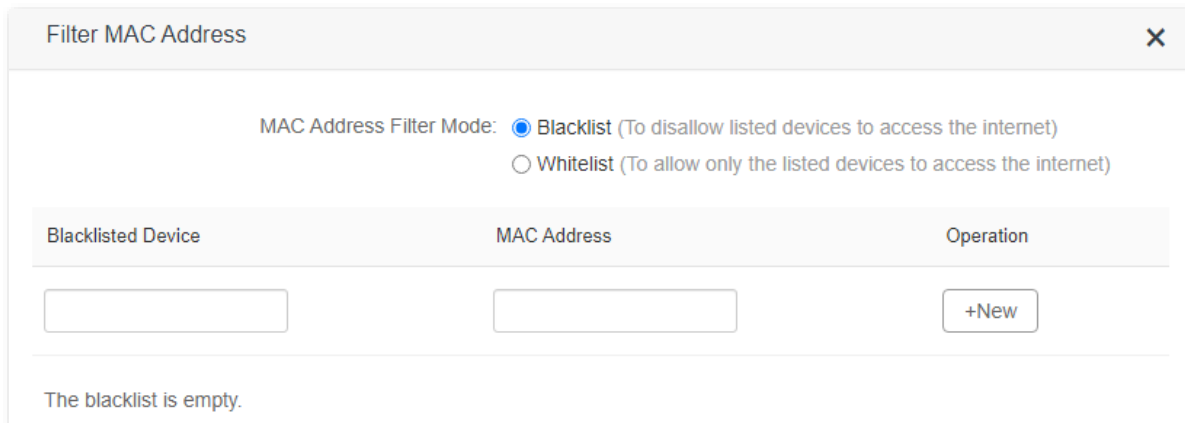
Parameter	Description
Always on	All LED indicators stay in their normal status.
Always off	All LED indicators are turned off.
Schedule	LED indicators are only turned off during the specified period.

8.6 Filter MAC address

8.6.1 Overview

This function enables you to add devices to the whitelist or blacklist to enable or disable specified users to access the internet through the router.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > Filter MAC Address**.




Filter MAC Address

MAC Address Filter Mode: ☒ Blacklist (To disallow listed devices to access the internet)
☐ Whitelist (To allow only the listed devices to access the internet)

Blacklisted Device	MAC Address	Operation
<input type="text"/>	<input type="text"/>	<input type="button" value="+New"/>

The blacklist is empty.

Parameter description

Parameter	Description
MAC Address Filter Mode	<p>Specifies the MAC address filter mode.</p> <ul style="list-style-type: none"> • Blacklist: WiFi-enabled devices listed are unable to connect to the WiFi network of the router, and wired devices listed are unable to access the internet. • Whitelist: WiFi-enabled devices listed are able to connect to the WiFi network of the router, and wired devices listed are able to access the internet.
Blacklisted Device	Specify the name or remark for the device.
Whitelisted Device	
MAC Address	Specifies the MAC addresses of devices added to the list.
Operation	<p><input type="button" value="+New"/> : Used to add new devices to the blacklist or whitelist.</p> <p> : Used to remove devices from the blacklist or whitelist.</p>
Add all online devices to the whitelist	Only available when you set the whitelist for the first time. By clicking it, you can add all currently connected devices to the whitelist.

8.6.2 Only allow specified device to access the internet

Scenario: The WiFi in your home is misused by unknown users sometimes.

Goal: Only allow certain devices of family members to access the internet.

Solution: You can configure the MAC address filter function to reach the goal.

Assume that:

Device	MAC address	Status
Your own phone	8C:EC:4B:B3:04:92	Connected
Wife's phone	94:C6:91:29:C2:12	Disconnected
Kid's phone	98:9C:57:19:D0:1B	Disconnected

Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **Advanced Settings > Filter MAC Address**.

Step 3 Set the **MAC Address Filter Mode** to **Whitelist**.

Step 4 (Optional) Enter the device name in the **Whitelisted Device** field, which is **Wife's phone** in this example.

Step 5 Enter the **MAC Address** of the device, which is **94:C6:91:29:C2:12** in this example.

Step 6 Click **+New**.

MAC Address Filter Mode: ☐ Blacklist (To disallow listed devices to access the internet)

☒ Whitelist (To allow only the listed devices to access the internet)

Whitelisted Device	MAC Address	Operation
<input type="text" value="Wife's phone"/>	<input type="text" value="94:C6:91:29:C2:12"/>	<input type="button" value="+New"/>

Step 7 Repeat **Step 4** to **Step 6** to add **Kid's phone (98:9C:57:19:D0:1B)** to the whitelist.

Step 8 Click **Save**.

Filter MAC Address
✕

MAC Address Filter Mode:
☐ Blacklist (To disallow listed devices to access the internet)
☒ Whitelist (To allow only the listed devices to access the internet)

Whitelisted Device	MAC Address	Operation
<input type="text"/>	<input type="text"/>	<input type="button" value="+New"/>
123	EC:3D:FD:FE:0E:BB	Local Host
Wife's phone	94:C6:91:29:C2:12	
Kid's phone	98:9C:57:19:D0:1B	

---End

When completing the configurations, only the three devices added can access the internet through the router.

8.7 Firewall

The firewall function helps the router detect and defend ICMP flood attack, TCP flood attack and UDP flood attack, and ignore Ping packet from WAN port. It is recommended to keep the default settings.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > Firewall**.

Parameter description

Parameter	Description
ICMP Flood Attack Defense	<p>Used to enable or disable the ICMP flood attack defense.</p> <p>The ICMP flood attack means that, to implement attacks on the target host, the attacker sends a large number of ICMP Echo messages to the target host, which causes the target host to spend a lot of time and resources on processing ICMP Echo messages, but cannot process normal requests or responses.</p>
TCP Flood Attack Defense	<p>Used to enable or disable the TCP flood attack defense.</p> <p>The TCP flood attack means that, to implement attacks on the target host, the attacker quickly initiates a large number of TCP connection requests in a short period of time, and then suspends in a semi-connected state, thereby occupying a large amount of server resources until the server denies any services.</p>
UDP Flood Attack Defense	<p>Used to enable or disable the UDP flood attack defense.</p> <p>The UDP flood attack is implemented in a similar way with ICMP flood attack, during which the attacker sends a large number of UDP packets to the target host, causing the target host to be busy processing these UDP packets, but unable to process normal packet requests or responses.</p>
Ignore Ping Packet From WAN Port	<p>Used to enable or disable the Ignore Ping packet from WAN Port function.</p> <p>When it is enabled, the router automatically ignores the ping to its WAN from hosts from the internet and prevents itself from being exposed, while preventing external ping attacks.</p>

8.8 Static route

8.8.1 Overview


Routing is the act of choosing an optimal path to transfer data from a source address to a destination address. A static route is a special route that is manually configured and has the advantages of simplicity, efficiency, and reliability. Proper static routing can reduce routing problems and overload of routing data flow, and improve the forwarding speed of data packets.

A static route is set by specifying the target network, subnet mask, default gateway, and interface. The target network and subnet mask are used to determine a target network or host. After the static route is established, all data whose destination address is the destination network of the static route are directly forwarded to the gateway address through the static route interface.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > Static Route**.

Static Route ✕				
Destination Network	Subnet Mask	Gateway	Interface	Operation
<input type="text"/>	<input type="text"/>	<input type="text"/>	WAN	<button>+New</button>
172.16.200.1	255.255.255.255	0.0.0.0	WAN	System
192.168.0.0	255.255.255.0	0.0.0.0	LAN	System
224.0.0.0	240.0.0.0	0.0.0.0	LAN	System
0.0.0.0	0.0.0.0	172.16.200.1	WAN	System

Parameter description

Parameter	Description
Destination Network	Specifies the IP address of the destination network.
	When the Destination Network and Subnet Mask are both 0.0.0.0, it indicates that this is the default route.
	 TIP When the route of packets cannot be found in the routing table, the router will forward the packets using the default route.
Subnet Mask	Specifies the subnet mask of the destination network.
Gateway	Specifies the ingress IP address of the next hop route after the data packet exits from the interface of the router.
	0.0.0.0 indicates that the destination network is directly connected to the router.

Parameter	Description
WAN	Specifies the interface that the packet exits from.
Operation	Used to add or delete static route rules.

8.8.2 Add a static route rule

Scenario: You have an RX9 Pro and another two routers. Router1 is connected to the internet and its DHCP server is enabled. Router2 is connected to an intranet and its DHCP server is disabled.

Goal: You can access both the internet and intranet at the same time.

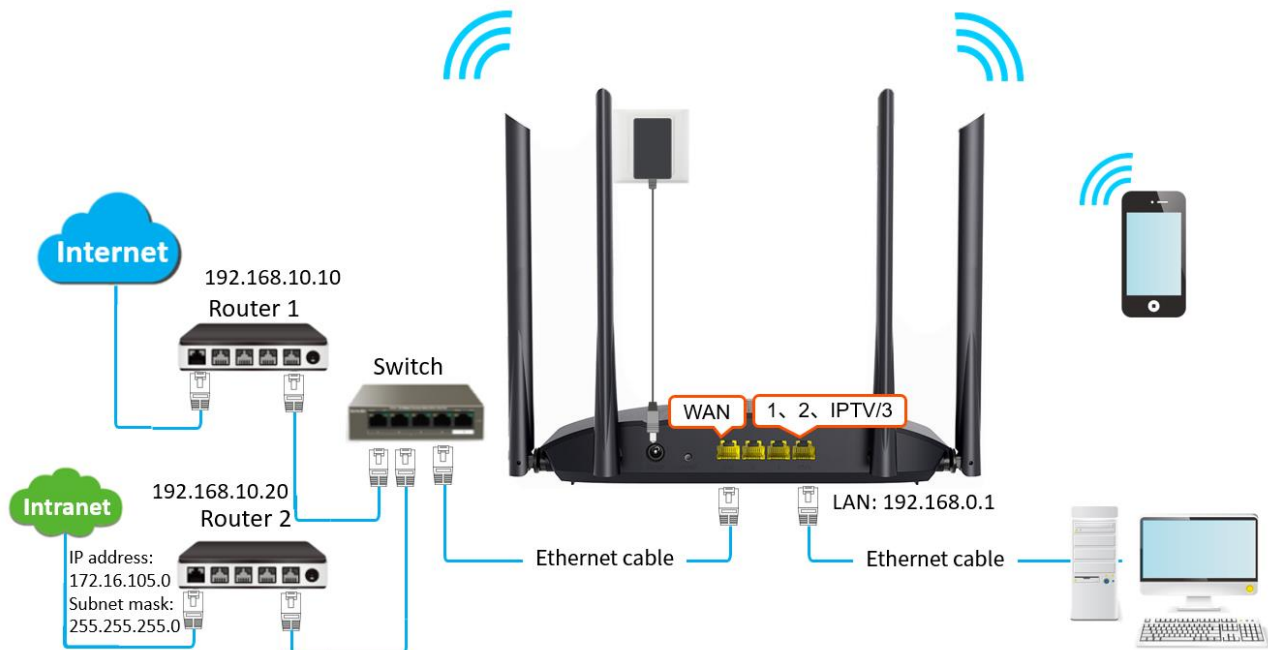
Solution: You can configure the static route function to reach the goal.

Assume the LAN IP addresses of these devices are:

- RX9 Pro: 192.168.0.1
- Router1: 192.168.10.10
- Router2: 192.168.10.20

The information about the intranet:

- IP address: 172.16.105.0
- Subnet mask: 255.255.255.0



Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Refer to [Access the internet with a dynamic IP address](#) to configure the internet access for RX9 Pro.

Internet Settings English ▾

WAN Port: ☒ Ethernet cable connected

Connection Type:

DNS Settings:

Connection Status: Connected. You can access the internet now.

Connection Duration: 0 s

Step 3 Add a static route rule on the RX9 Pro.

1. Navigate to **Advanced Settings > Static Route**.
2. Enter the IP address of the destination network, which is **172.16.105.0** in this example.
3. Enter the subnet mask of the destination network, which is **255.255.255.0** in this example.
4. Enter the ingress IP address of the next hop route, which is **192.168.10.20** in this example.
5. Click **+New**.

Static Route ✕

Destination Network	Subnet Mask	Gateway	Interface	Operation
<input type="text" value="172.16.105.0"/>	<input type="text" value="255.255.255.0"/>	<input type="text" value="192.168.10.20"/>	WAN	<input type="button" value="+New"/>

---End

When completing the configurations, you can access both the internet and intranet through RX9 Pro at the same time.

8.9 DDNS

8.9.1 Overview

DDNS normally interworks with virtual server, DMZ host and remote management, so that the internet users can be free from the influence of dynamic WAN IP address and access the internal server or the router's web UI with a fixed domain name.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > DDNS**.

DDNS: ☒

Service Provider: no-ip.com [Register](#)

User Name:

Password:

Domain Name:

Connection Status: Disconnected

Save

Parameter description

Parameter	Description
DDNS	Used to enable or disable the DDNS function.
Service Provider	Specifies the DDNS service provider.
User Name	Specify the user name and password registered on a DDNS service provider's website for logging in to the DDNS service.
Password	
Domain Name	Specifies the domain name registered on the DDNS service provider's website. If this field is invisible after choosing the service provider, it is not required.
Connection Status	Specifies the current connection status of the DDNS service.

8.9.2 Enable internet users to access LAN resources using a domain name

Scenario: You have set up an FTP server within your LAN.

Goal: Open the FTP server to internet users and enable family members who are not at home to access the resources of the FTP server from the internet with a domain name.

Solution: You can configure the DDNS plus virtual server functions to reach the goal.

Assume that the information of the FTP server includes:

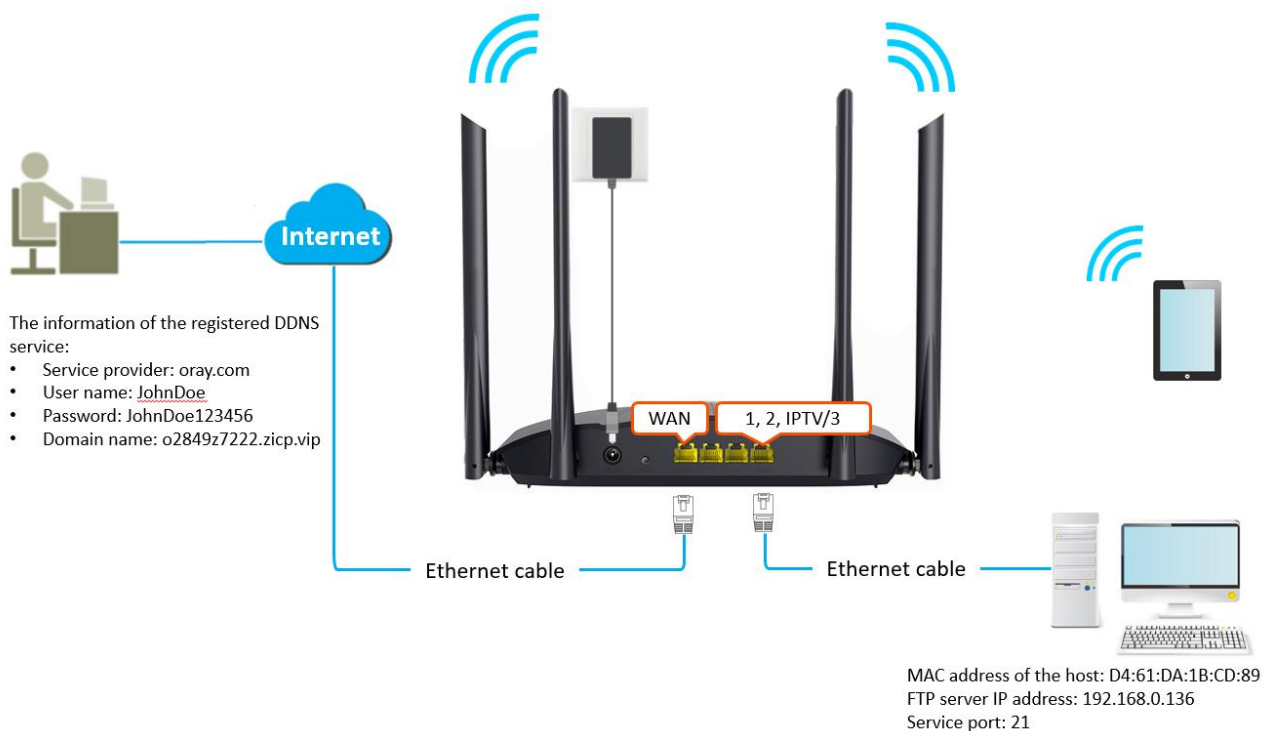
- IP address: 192.168.0.136
- MAC address of the host: D4:61:DA:1B:CD:89
- Service port: 21

The information of the registered DDNS service:

- Service provider: oray.com
- User name: JohnDoe
- Password: JohnDoe123456
- Domain name: o2849z7222.zicp.vip



Please ensure that router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.



Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Configure the DDNS function.

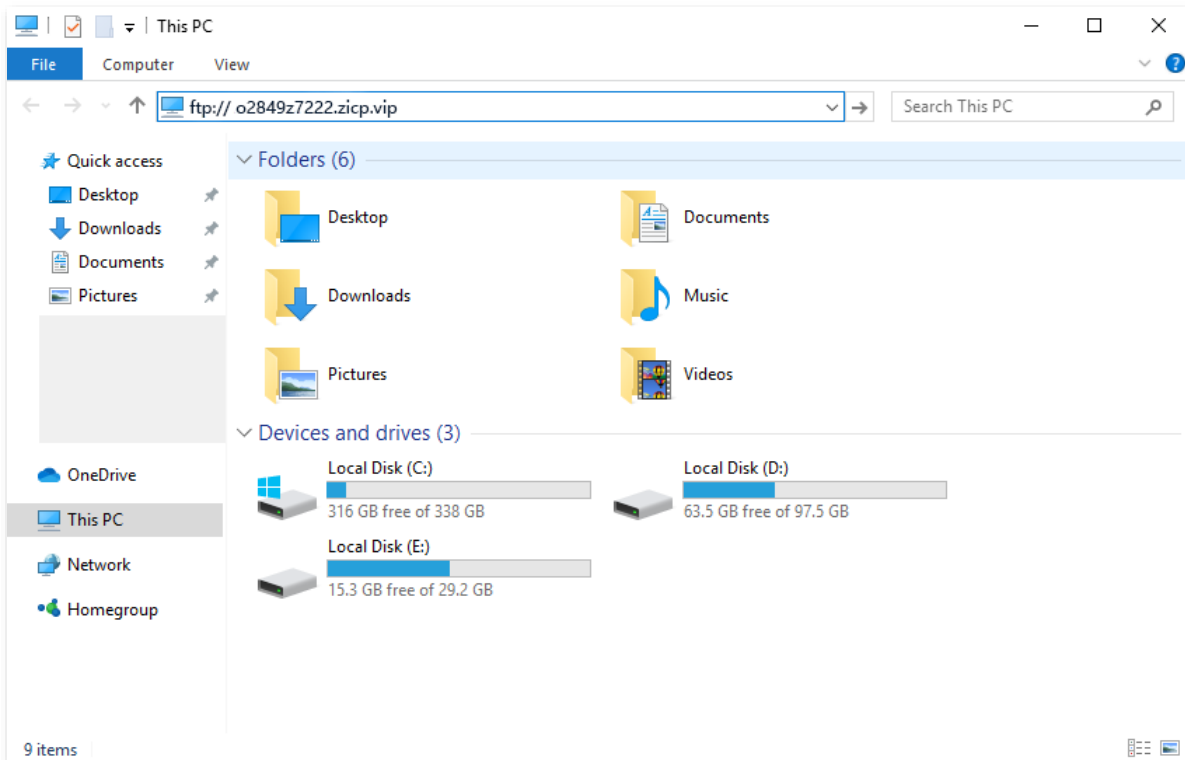
1. Navigate to **Advanced Settings > DDNS**.
2. Enabled the **DDNS** function.
3. Choose a service provider, which is **oray.com** in this example.
4. Enter the user name and password, which are **JohnDoe** and **JohnDoe123456** in this example.
5. Click **Save**.

Wait a moment, when the Connection Status turns **Connected**, the configurations succeed.

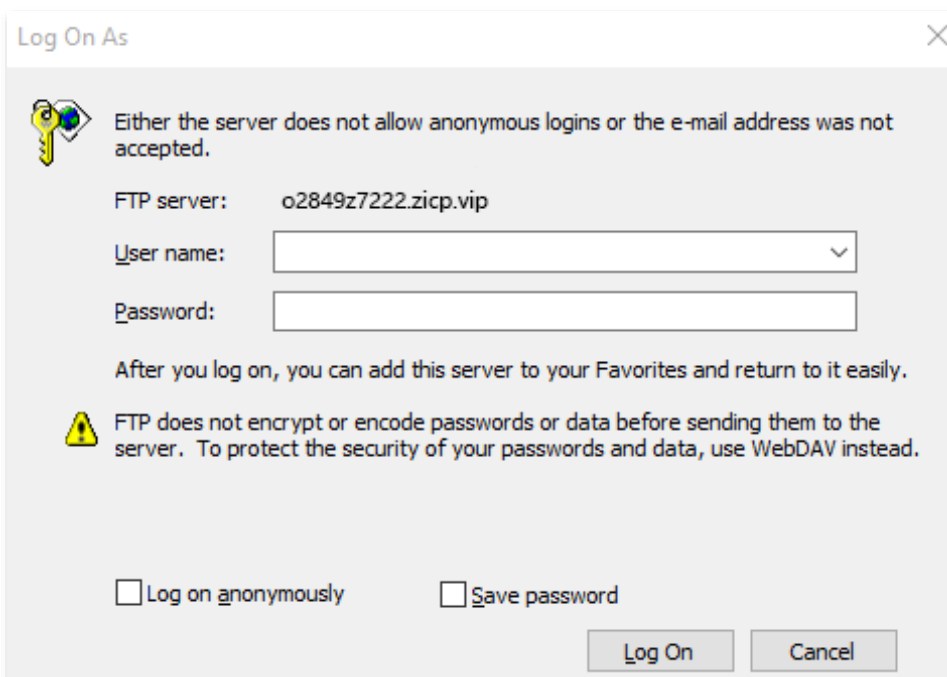
Step 3 Configure the virtual server function (refer to [Virtual server](#))

---End

When completing the configurations, users from the internet can access the FTP server by visiting *"Intranet service application layer protocol name://the domain name"*. If the WAN port number is not the same as the default intranet service port number, the visiting address should be: *"Intranet service application layer protocol name://the domain name:WAN port number"*. In this example, the address is **ftp://o2849z7222.zicp.vip**.



Enter the user name and password to access the resources on the FTP server.





After the configurations, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the LAN port number configured in the virtual server function is the same as the service port number set on the server.
 - Close the firewall, antivirus software and security guards on the host of the FTP server and try again.
-

8.10 Virtual server

8.10.1 Overview

By default, internet users cannot actively access the LAN of the router.

The virtual server function opens a port of the router, and binds the LAN server to the port using the server's IP address and intranet service port. All access requests to the WAN port of the router will be directed to the server. Therefore, the server within the LAN can be accessed by internet users and the LAN can be free from attacks from the internet.

For example, the virtual server function enables internet users to access web servers or FTP servers within the LAN.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > Virtual Server**.

Internal IP Address	LAN Port	WAN Port	Protocol	Operation
<input type="text"/>	21	<input type="text"/>	TCP	+New

Parameter description

Parameter	Description
Internal IP Address	Specifies the IP address of the server within the LAN of the router.
LAN Port	Specifies the service port number of the server under the LAN of the router. You can either choose a service port number in the drop-down box, or enter a service port number manually.
WAN Port	Specifies the port of the router which is opened and accessible to internet users.
Protocol	Specifies the transport layer protocol of the service. If you are not sure about this parameter, TCP&UDP is recommended.
Operation	Available operations include: <ul style="list-style-type: none"> : It is used to add a new virtual server rule. : It is used to delete existing virtual server rules.

8.10.2 Enable internet users to access LAN resources

Scenario: You have set up an FTP server within your LAN.

Goal: Open the FTP server to internet users and enable family members who are not at home to access the resources of the FTP server from the internet.

Solution: You can configure the virtual server function to reach the goal.

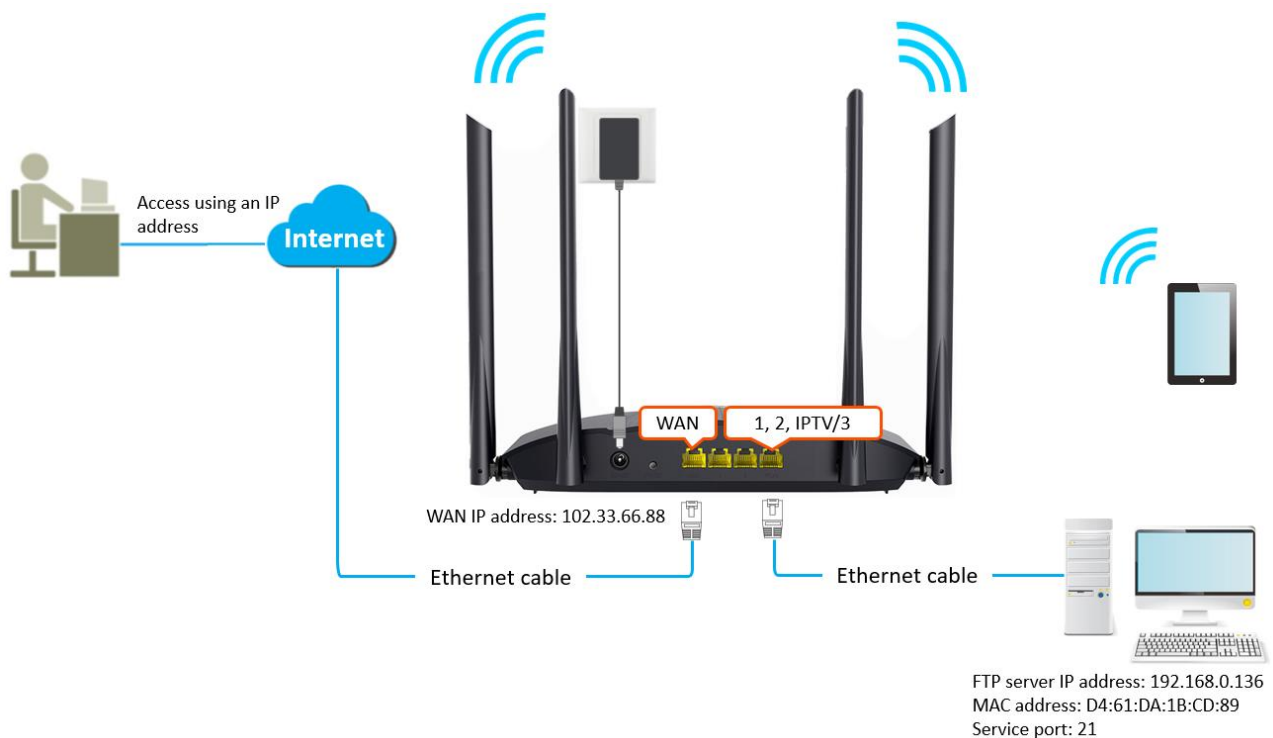
Assume that the information of the FTP server includes:

- IP address: 192.168.0.136
- MAC address: D4:61:DA:1B:CD:89
- Service port: 21
- The WAN IP address of the router: 102.33.66.88.



TIP

- Please ensure that router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255; Private IP addresses of class B range from 172.16.0.0-172.31.255.255; Private IP addresses of class C range from 192.168.0.0-192.168.255.255.
- ISPs may block unreported web services to be accessed with the default port number 80. Therefore, when the default LAN port number is 80, please change it to an uncommon port number (1024-65535) manually, such as 9999.
- The LAN port number can be different from the WAN port number.



Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Add a virtual server rule.

1. Navigate to **Advanced Settings > Virtual Server**.
2. Enter the **Internal IP Address**, which is **192.168.0.136** in this example.
3. Choose a **LAN Port** in the drop-down box, which is **21** in this example.

4. Choose a protocol, which is **TCP&UDP** in this example.
5. Click **+New**.

Internal IP Address	LAN Port	WAN Port	Protocol	Operation
192.168.0.136	21	21	TCP&UDP	+New

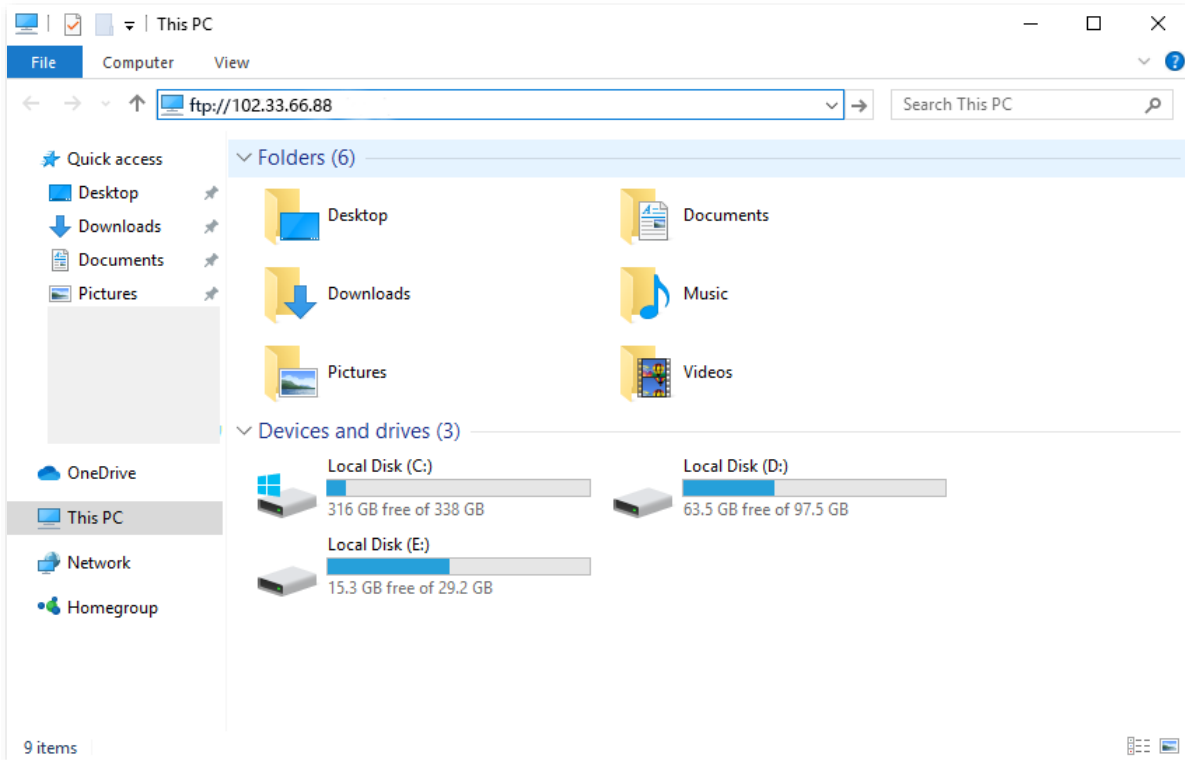
Step 3 Assign a fixed IP address to the host where the server locates.

1. Navigate to **System Settings > DHCP Reservation**.
2. Specifies a **Device Name** for the host of the server, which is **FTP server** in this example.
3. Enter the **MAC Address** of the host of the server, which is **D4:61:DA:1B:CD:89** in this example.
4. Enter the **IP Address** of host of the server, which is **192.168.0.136** in this example.
5. Click **+New**.

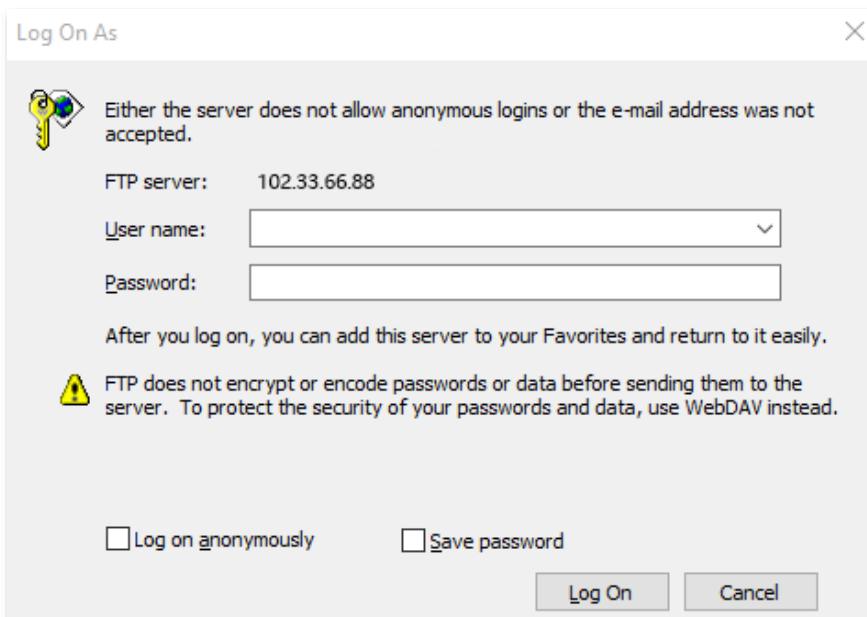
Device Name	MAC Address	IP Address	Status	Operation
FTP server	:61:DA:1B:CD:89	192.168.0.136	—	+New

---End

When completing the configurations, users from the internet can access the FTP server by visiting *"Intranet service application layer protocol name://WAN IP address of the router"*. If the WAN port number is not the same as the default intranet service port number, the visiting address should be: *"Intranet service application layer protocol name://WAN IP address of the router:WAN port number"*. In this example, the address is **"ftp://102.33.66.88"**. You can find the WAN IP address of the router in [WAN status](#).



Enter the user name and password to access the resources on the FTP server.



If you want to access the server within a LAN using a domain name, refer to the solution [DDNS](#) + [Virtual server](#).



After the configurations, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the LAN port number configured in the virtual server function is the same as the service port number set on the server.
 - Close the firewall, antivirus software and security guards on the host of the FTP server and try again.
-

8.11 DMZ host

8.11.1 Overview

A DMZ host on a LAN is free from restrictions in communicating with the internet. It is useful for getting better and smoother experience in video conferences and online games. You can also set the host of a server within the LAN as a DMZ host when in need of accessing the server from the internet.



- A DMZ host is not protected by the firewall of the router. A hacker may leverage the DMZ host to attack your LAN. Therefore, enable the DMZ function only when necessary.
- Hackers may leverage the DMZ host to attack the local network. Do not use the DMZ host function randomly.
- Security software, antivirus software, and the built-in OS firewall of the computer may cause DMZ function failures. Disable them when using the DMZ function. If the DMZ function is not required, you are recommended to disable it and enable your firewall, security, and antivirus software.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > DMZ Host**.

Parameter description

Parameter	Description
DMZ Host	Used to enable or disable the DMZ host function.
DMZ Host IP Address	Specifies the IP address of the host that is to be set as the DMZ host.

8.11.2 Enable internet users to access LAN resources

Scenario: You have set up an FTP server within your LAN.

Goal: Open the FTP server to internet users and enable family members who are not at home to access the resources of the FTP server from the internet.

Solution: You can configure the DMZ host function to reach the goal.

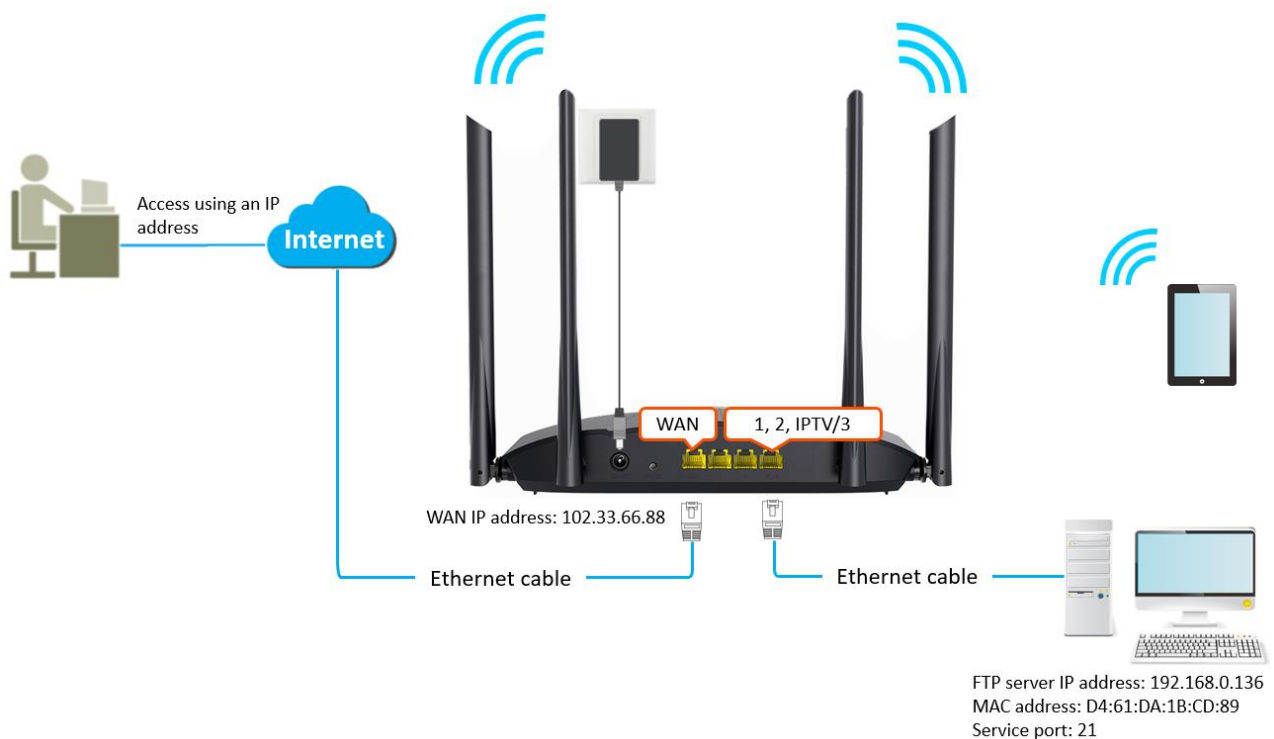
Assume that the information of the FTP server includes:

- IP address: 192.168.0.136
- MAC address: D4:61:DA:1B:CD:89
- Service port: 21
- The WAN IP address of the router: 102.33.66.88.



TIP

Please ensure that router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that starts with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255; Private IP addresses of class B range from 172.16.0.0-172.31.255.255; Private IP addresses of class C range from 192.168.0.0-192.168.255.255.

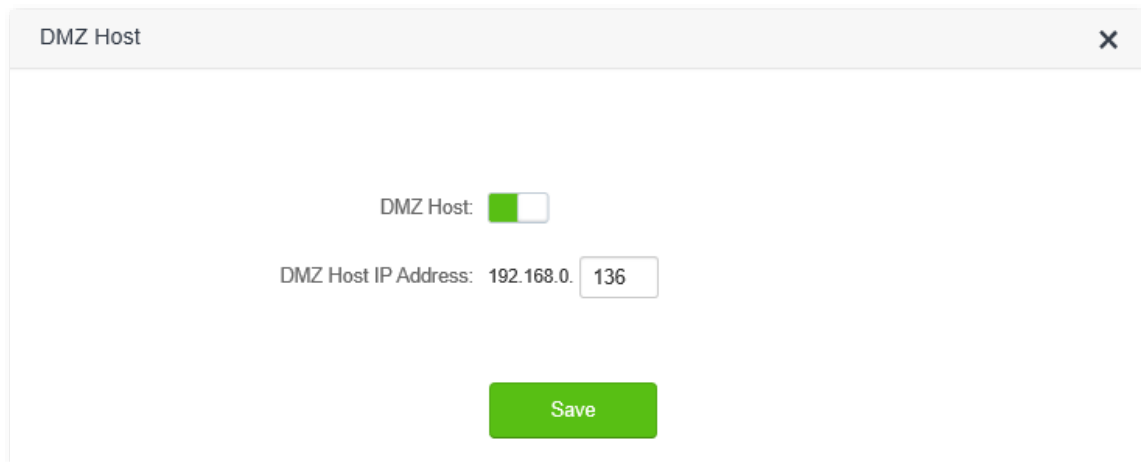


Configuring procedure:

Step 1 [Log in to the web UI](#) of the router.

Step 2 Set the server host as the DMZ host.

1. Navigate to **Advanced Settings > DMZ Host**.
2. Enable **DMZ Host**.
3. Enter the IP address of the host, which is **192.168.0.136** in this example.
4. Click **Save**.



DMZ Host

DMZ Host: ☒

DMZ Host IP Address: 192.168.0.

Step 3 Assign a fixed IP address to the host where the server locates.

1. Navigate to **System Settings > DHCP Reservation**.
2. Specify a **Device Name** for the server host, which is **FTP server** in this example.
3. Enter the MAC Address of the host of the server, which is **D4:61:DA:1B:CD:89** in this example.
4. Enter the reserved IP Address for the server host, which is **192.168.0.136** in this example.
5. Click **+New**.



Device Name	MAC Address	IP Address	Status	Operation
<input type="text" value="FTP server"/>	<input type="text" value=":61:DA:1B:CD:89"/>	<input type="text" value="192.168.0.136"/>	---	<input type="button" value="+New"/>

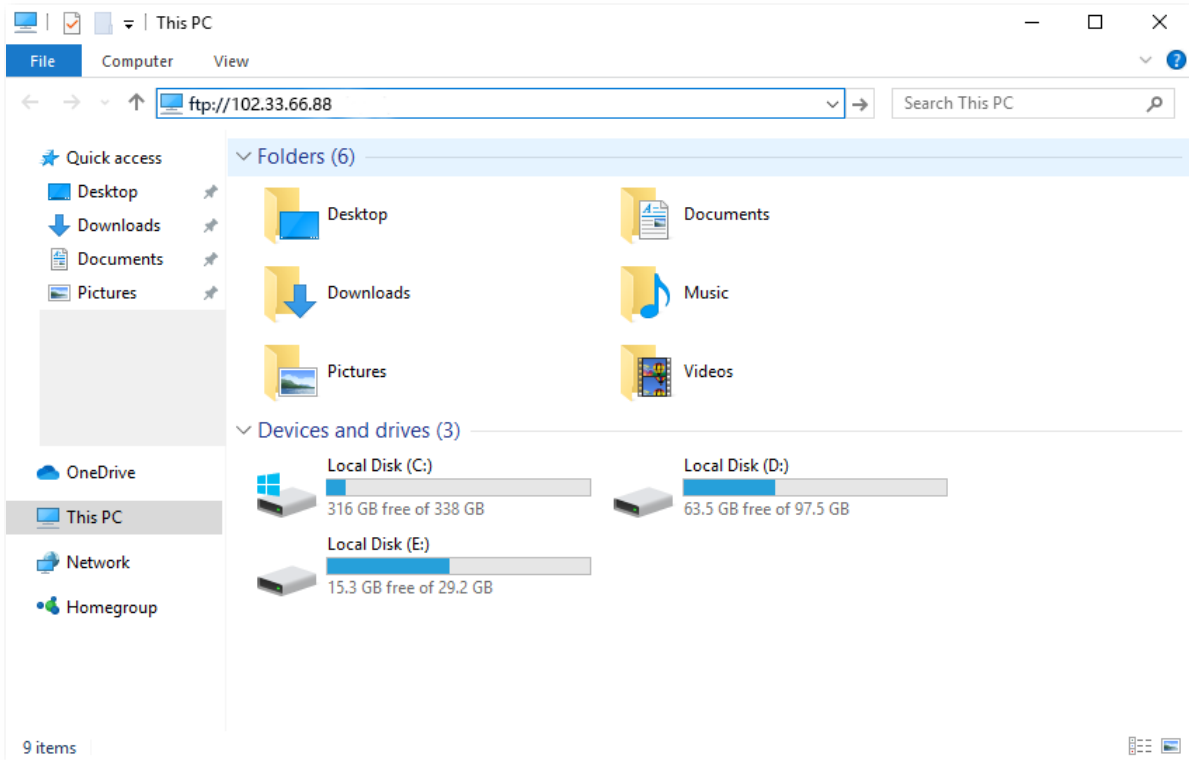
-----End

When the configurations are completed, users from the internet can access the DMZ host by visiting “*Intranet service application layer protocol name://WAN IP address of the router*”. If the intranet service port number is not the default number, the visiting address should be: “*Intranet service application layer protocol name://WAN IP address of the router:intranet service port number*”.

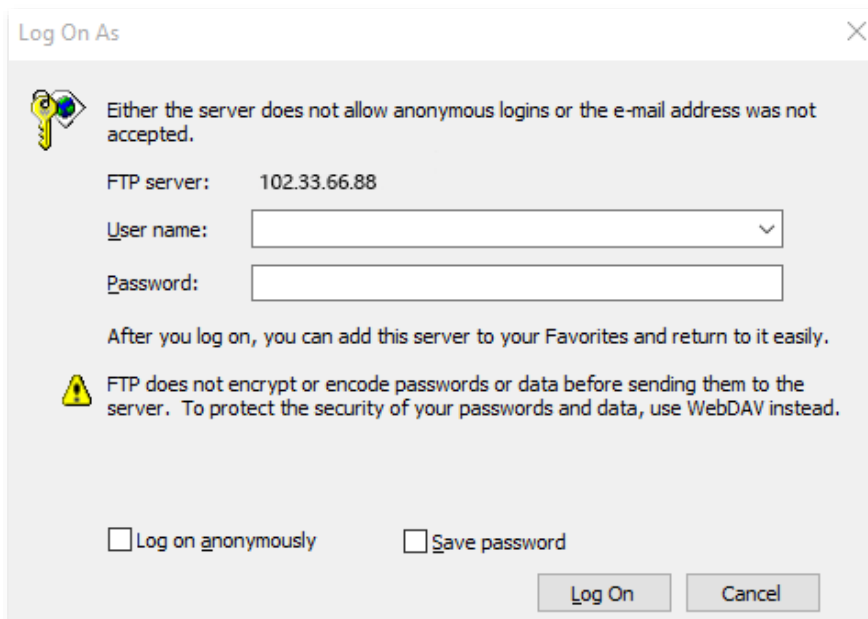
In this example, the address is “**ftp://102.33.66.88**”. You can find the WAN IP address of the router in [WAN status](#).



When the default intranet service port number is 80, please change the service port number to an uncommon one (1024-65535), such as 9999.



Enter the user name and password to access the resources on the FTP server.



If you want to access the server within a LAN using a domain name, refer to the solution [DMZ](#) + [DDNS](#).



TIP

After the configurations, if internet users still cannot access the FTP server, close the firewall, antivirus software and security guards on the host of the FTP server and try again.

8.12 UPnP

UPnP is short for Universal Plug and Play. This function enables the router to open port automatically for UPnP-based programs. It is generally used for P2P programs, such as BitComet and AnyChat, and helps increase the download speed.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **Advanced Settings > UPnP**.

This function is enabled by default.

UPnP

UPnP: ☒

Remote Host	Internet Port	Local Host	Internal Port	Protocol
-------------	---------------	------------	---------------	----------

When any program that supports the UPnP function is launched, you can find the port conversion information on this page when the program sends any requests.

UPnP

UPnP: ☒

Remote Host	Internet Port	Local Host	Internal Port	Protocol
anywhere	15328	192.168.0.136	15328	UDP
anywhere	15328	192.168.0.136	15328	TCP

9

System settings

9.1 LAN settings

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > LAN Settings**.

On this page, you can:

- **Change the LAN IP address and subnet mask of the router.**
- **Change the DHCP server parameters of the router.**

The DHCP server can automatically assign IP address, subnet mask, gateway and other information to clients within the LAN. If you disable this function, you need to manually configure the IP address information on the client to access the Internet. Do not disable the DHCP server function unless necessary.

- **Configure the DNS information assigned to clients.**

LAN Settings

LAN IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

DHCP Server: ☒

IP Address Range: 192.168.0. 100 ~ 200


Lease Time: 1 day

DNS Settings: ☐ ☐

Save

Parameter description

Parameter	Description
LAN IP Address	Specifies the LAN IP address of the router, which is also the management IP address for logging in to the web UI of the router.
Subnet Mask	Specifies the subnet mask of the LAN port, used to identify the IP address range of the local area network.

Parameter	Description
DHCP Server	IP Address Range Specifies the range of IP addresses that can be assigned to devices connected to the router. The default range is 192.168.0.100 to 192.168.0.200.
	Lease Time Specifies the valid duration of the IP address that is assigned to a client. When the lease time reaches half, the client will send a DHCP Request to the DHCP server for renewal. If the renewal succeeds, the lease is renewed based on the time of the renewal application; if the renewal fails, the renewal process is repeated again at 7/8 of the lease period. If it succeeds, the lease is renewed based on the time of the renewal application. If it still fails, the client needs to reapply for IP address information after the lease expires. It is recommended to keep the default value.
	<div data-bbox="164 864 240 925">DNS Settings</div> <div data-bbox="300 819 443 880">Primary DNS Server</div> <div data-bbox="507 745 1422 949"> Specifies the primary DNS address of the router, which is assigned to the clients. You can change it if necessary.  TIP Make sure that the primary DNS server is the IP address of the correct DNS server or DNS proxy. Otherwise, you may fail to access the internet. </div> <div data-bbox="300 987 475 1048">Secondary DNS Server</div> <div data-bbox="507 987 1406 1048"> Specifies the secondary DNS address of the router used to assign to the clients. It is an optional field. </div>

9.2 DHCP reservation

9.2.1 Overview

Through the DHCP reservation function, specified clients can always obtain the same IP address when connecting to the router, ensuring that the router's "Virtual server", "DDNS", "DMZ host" and other functions can function normally. This function takes effect only when the DHCP server function of the router is enabled.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > DHCP Reservation**.

DHCP Reservation

Device Name

MAC Address

IP Address

Status

Operation

Optional

--

+New

Parameter description

Parameter	Description
Device Name	Specifies the device name of the client.
MAC Address	Specifies the MAC address of the client.
IP Address	Specifies the IP address reserved for the client.
Status	Specifies whether the client is online or not.
Operation	<p>The available options include:</p> <ul style="list-style-type: none"> : Used to add a new DHCP reservation rule. : Used to bind the MAC address to the reserved IP address. : Used to unbind the MAC address from the reserved IP address. : Used to delete the DHCP reservation rules.

9.2.2 Assign static IP addresses to LAN clients

Scenario: You have set up an FTP server within your LAN.

Goal: Assign a fixed IP address to the host of the FTP server and prevent the failure of access to the FTP server owing to the change of IP address.

Solution: You can configure the DHCP reservation function to reach the goal.

Assume that the information of the FTP server includes:

- The fixed IP address for the server: 192.168.0.136
- MAC address of the FTP server host: D4:61:DA:1B:CD:89

Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **System Settings > DHCP Reservation**.
- Step 3** (Optional) Enter the device name for the host.
- Step 4** Enter the MAC address of the host, which is **D4:61:DA:1B:CD:89** in this example.
- Step 5** Enter the IP address reserved for the host, which is **192.168.0.136** in this example.
- Step 6** Click **+New**.

DHCP Reservation				
Device Name	MAC Address	IP Address	Status	Operation
FTP server	:61:DA:1B:CD:89	192.168.0.136	—	+New

---End

When completing the configurations, the page is shown as below and the FTP server host always gets the same IP address when connecting to the router, which is 192.168.0.136 in this example.

DHCP Reservation				
Device Name	MAC Address	IP Address	Status	Operation
Optional			—	+New
DESKTOP-5LII2L5		192.168.0.135		
FTP server	D4:61:DA:1B:CD:89	192.168.0.136		

9.3 WAN settings

In the **WAN Settings** module, you can check and modify MTU value, WAN speed, duplex mode, MAC address, service name and server name.

9.3.1 Change MTU value

MTU (Maximum Transmission Unit) is the largest data packet transmitted by a network device. When the connection type is PPPoE, the default MTU value is 1480. When the connection type is dynamic IP address or static IP address, the default MTU value is 1500. Do not change the value unless necessary. If you need to, please refer to the following instructions.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > WAN Settings**.

Generally, the default value is recommended. Try to change the MTU value when:

- You cannot access some specific websites or encrypted websites (such as E-banking or Paypal websites).
- You cannot receive or send Emails or access an FTP or POP server.

You can try reducing the value of MTU gradually from 1500 until the problem is resolved (The recommended range is 1400 to 1500).

MTU application description

MTU	Application
1500	Commonly used for non-ADSL and non-VPN dial-up connections.
1492, 1480	Used for ADSL dial-up connections.
1472	The maximum value for the ping command. A packet with a larger size is fragmented.
1468	Used for DHCP connections.
1436	Used for VPN or PPTP connections.

9.3.2 Change the WAN speed and duplex mode

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > WAN Settings**.

When the Ethernet cable is intact and connected to the WAN port properly, but **Ethernet cable disconnected** is still shown on the **Internet Settings** page, you can try to change the **Speed** to **10 Mbps FDX** or **10 Mbps HDX** to solve the problem. Otherwise, keep the default settings.

Speed parameter description

Speed	Application
1000 Mbps auto-negotiation	Indicates that the speed and duplex mode are determined through the negotiation with the peer port.
10 Mbps FDX	10 Mbps Full Duplex. It indicates that the WAN port is working at the speed of 10 Mbps, and the port can receive and send data packets at the same time.
10 Mbps HDX	10 Mbps Half Duplex. It indicates that the WAN port is working at the speed of 10 Mbps, but the port can only receive or send data packets alternately.
100 Mbps FDX	100 Mbps Full Duplex. It indicates that the WAN port is working at the speed of 100 Mbps, and the port can receive and send data packets at the same time.
100 Mbps HDX	100 Mbps Half Duplex. It indicates that the WAN port is working at the speed of 100 Mbps, but the port can only receive or send data packets alternately.

9.3.3 Change the MAC address of the WAN port

If you still cannot access the internet after completing [Internet Settings](#), it could be the result of the ISP's configuration to bind the internet account information with a fixed MAC address. In this case, you can clone and change the MAC address of the router to solve the problem.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > WAN Settings**.

The screenshot shows the 'WAN Settings' window. It contains the following fields and options:

- MTU:** A text input field with the value '1492'.
- Speed:** A dropdown menu showing '1000 Mbps auto-negotiation'. To its right, it says 'Current speed: 10M full duplex'.
- MAC Address:** A dropdown menu with a red dashed border. The menu is open, showing four options: 'Default' (highlighted in blue), 'Default', 'Clone local MAC address', and 'Set MAC address'. To the right of the dropdown, it says 'Default: D8:32:14:F5:68:11'.
- Save:** A green button at the bottom center.

- **Default:** Keep the factory setting of MAC address.
- **Clone local MAC address:** Set the MAC address of the router to the same as that of the device which is configuring the router.
- **Set MAC address:** Manually set a MAC address.



Please ensure the cloned MAC address is that of the computer or the router which is already able to access the internet.

Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **System Settings > WAN Settings**.
- Step 3** Click the drop-down box of **MAC Address**, choose **Clone local MAC address**, or set **MAC address** and enter the desired MAC address.
- Step 4** Click **Save**.

---End

9.4 Time settings

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > Time Settings**.

You can select time zone on this page. By default, the system time of the router is synchronized with the internet.

Time Settings

Select Time Zone:

(GMT+08:00) Beijing, Chongqing, Hong K

Current Time:

2023-09-20 11:14:06

(synchronized with internet time)

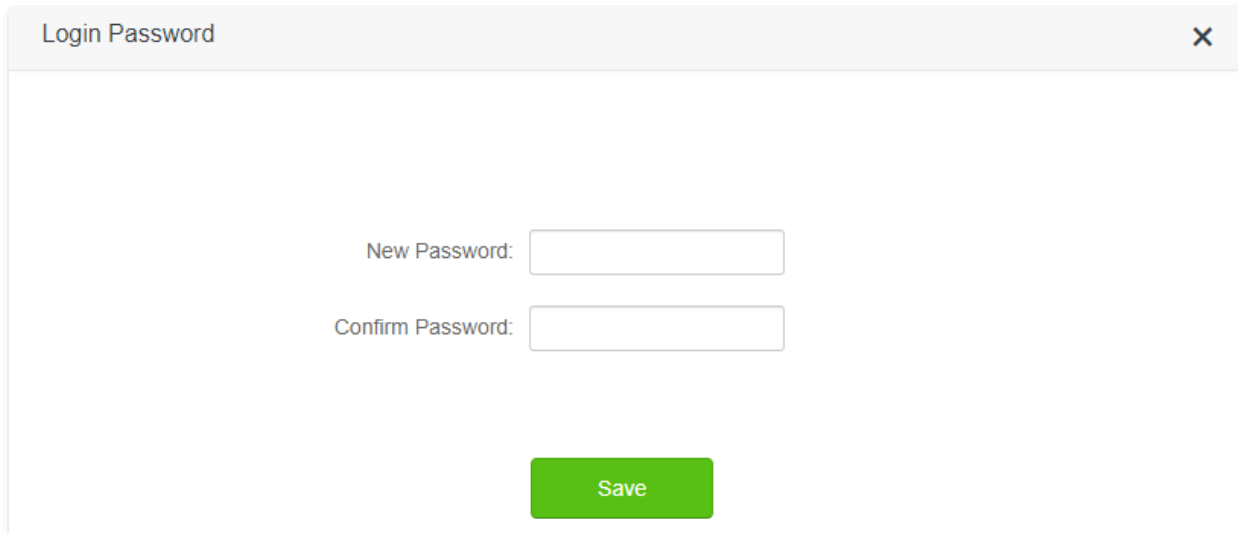
Save

9.5 Login password

To ensure network security, a login password is recommended. A login password consisting of more types of characters, such as uppercase letters and lowercase letters, brings higher security.

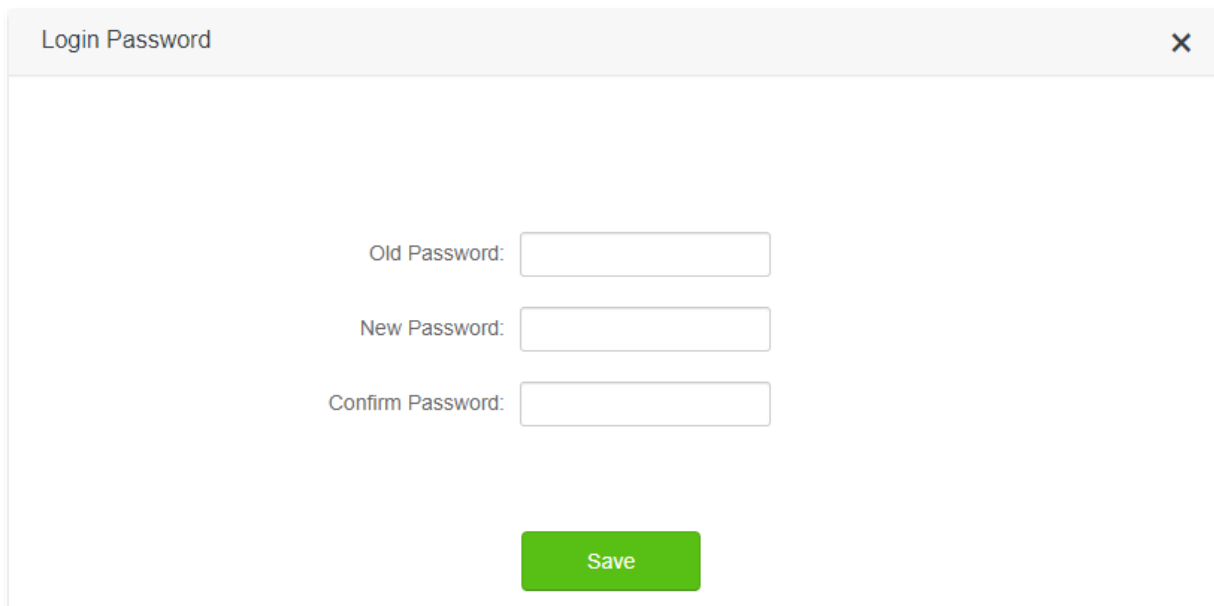
To access the configuration page, [log in to the web UI](#) of the router and navigate to **System Settings > Login Password**.

When you use the router for the first time, no password is required to log in to the web UI of the router and you can set a login password on this page.



The screenshot shows a web browser window titled "Login Password" with a close button (X) in the top right corner. The page contains two input fields: "New Password:" and "Confirm Password:". Below these fields is a green "Save" button.

If you have already set a login password, you can change the password on this page and the old password is required.



The screenshot shows a web browser window titled "Login Password" with a close button (X) in the top right corner. The page contains three input fields: "Old Password:", "New Password:", and "Confirm Password:". Below these fields is a green "Save" button.



If you forget your login password and cannot log in to the web UI of the router, refer to [Reset the router](#) to restore the router to factory settings and log in to the web UI without password.

9.6 Reboot and reset

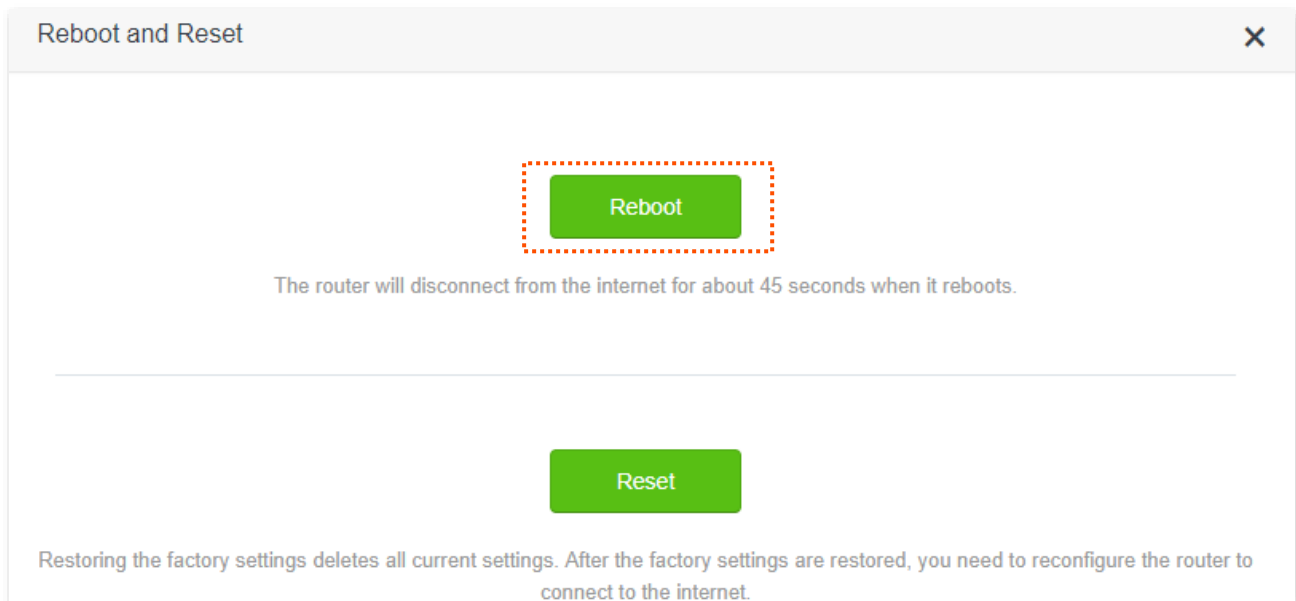
9.6.1 Reboot the router

If any parameter fails to take effect or the router does not work properly, you can try rebooting the router.



Rebooting the router will disconnect all connections to the router. Reboot the router in spare time.

To reboot the router, [log in to the web UI](#) of the router and navigate to **System Settings > Reboot and Reset**. Click **Reboot** to reboot the router.



Wait for a moment until the ongoing process finishes.

9.6.2 Reset the router

If you are uncertain about why the internet is inaccessible through the router or you forget the login password of the router, you can reset the router.



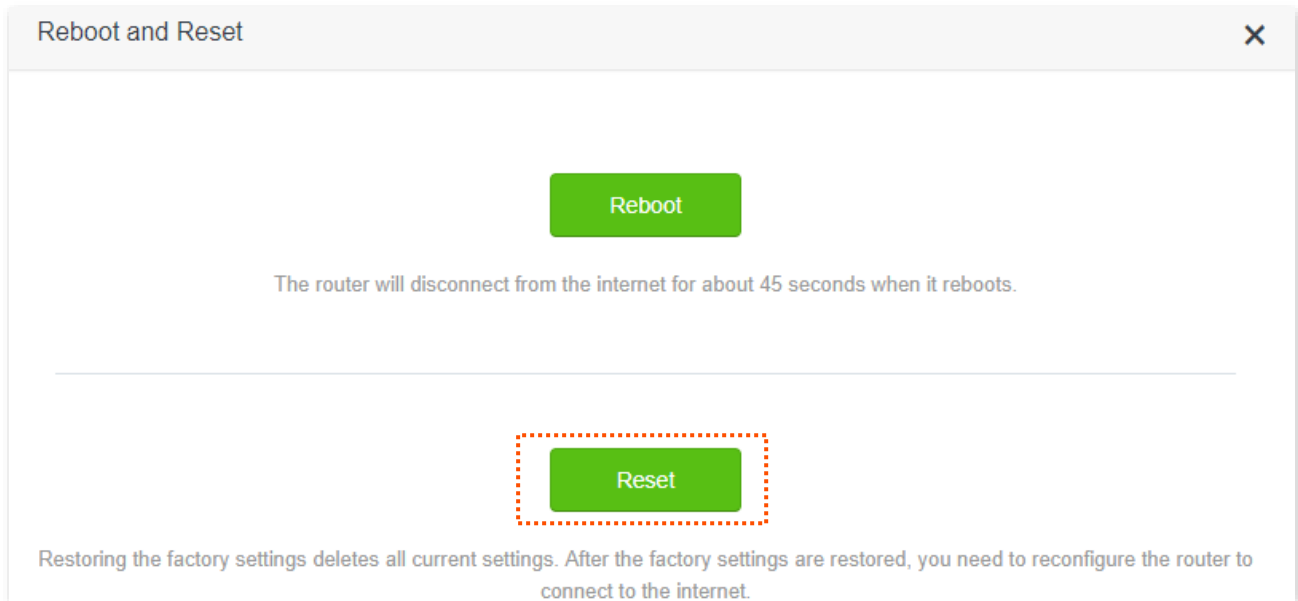
- Resetting the router is not recommended unless you cannot find a solution for the current problem anyway. You need to reconfigure the router after it is reset.
- Ensure that the power supply of the router is normal when the router is reset. Otherwise, the router could be damaged.
- The default login IP address is 192.168.0.1 after resetting, and no password is required.

Reset the router using the reset button

Hold down the **Reset** button on the rear panel of the router for about 8 seconds and release it when the LED indicators blink fast. The router is reset successfully.

Reset the router on the web UI

[Log in to the web UI](#) of the router. Navigate to **System Settings > Reboot and Reset**, and click **Reset**.



Wait for a moment until the ongoing process finishes.

9.7 Firmware upgrade

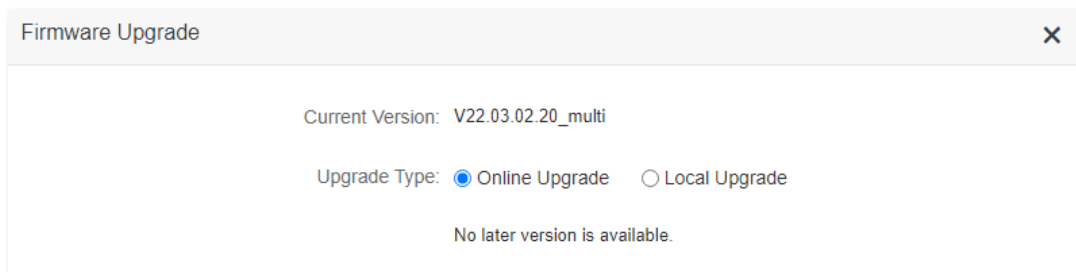
This function enables the router to obtain the latest functions and more stable performance. The router supports online firmware upgrade and local firmware upgrade.

9.7.1 Online upgrade

When the router is connected to the internet, it auto-detects whether there is a new firmware and displays the detected information on the page. You can choose whether to upgrade to the latest firmware.

Configuring procedure:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **System Settings > Firmware Upgrade**.
- Step 3** Wait until a new firmware version is detected.



- Step 4** Click **Update**.

---End

Wait for a moment until the ongoing process finishes. [Log in to the web UI](#) of the router again. Navigate to **System Settings > System Status** and check whether the upgrade is successful based on the **Firmware Version**.



For better performance of the new firmware of the router, you are recommended to reset the router to factory default settings and re-configure the router when the upgrading is completed.

9.7.2 Local upgrade



In order to prevent the router from being damaged:

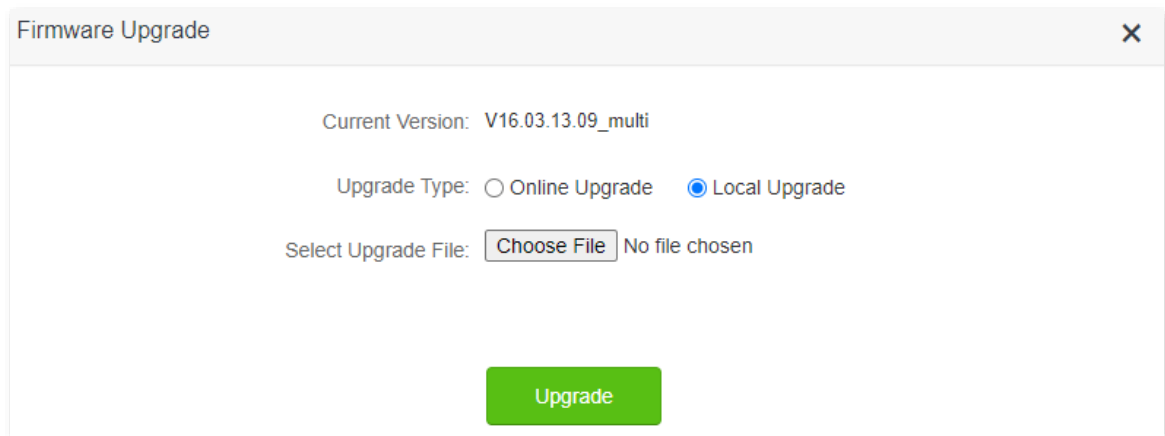
- Ensure that the firmware is applicable to the router.
- It is recommended to upgrade the firmware by connecting a LAN port to a computer and performing the upgrade on the web UI.
- When you are upgrading the firmware, do not power off the router.

- Step 1** Go to www.tendacn.com. Download an applicable firmware of the router to your local computer and unzip it.
- Step 2** [Log in to the web UI](#) of the router.

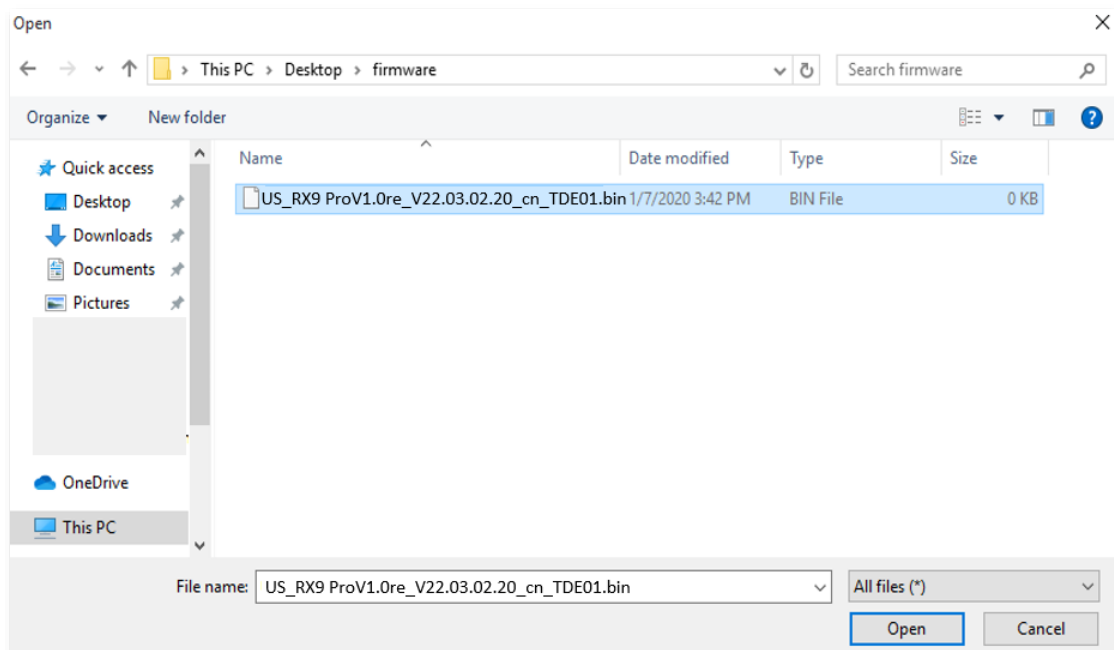
Step 3 Navigate to **System Settings > Firmware Upgrade**.

Step 4 Choose **Local Upgrade**.

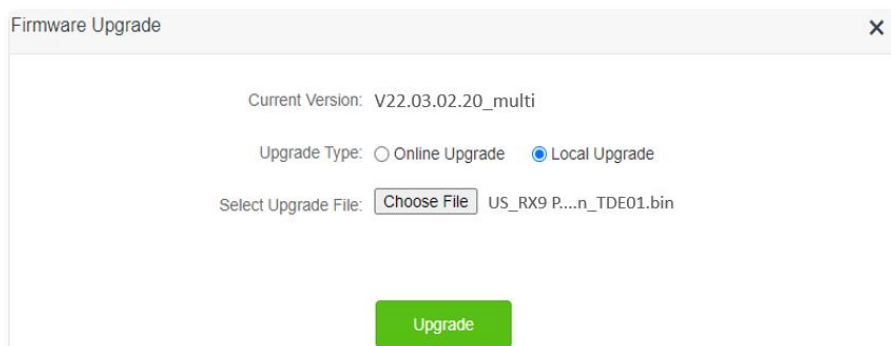
Step 5 Click **Choose File**.



Step 6 Target the firmware file downloaded previously (extension: bin), and click **Open**.

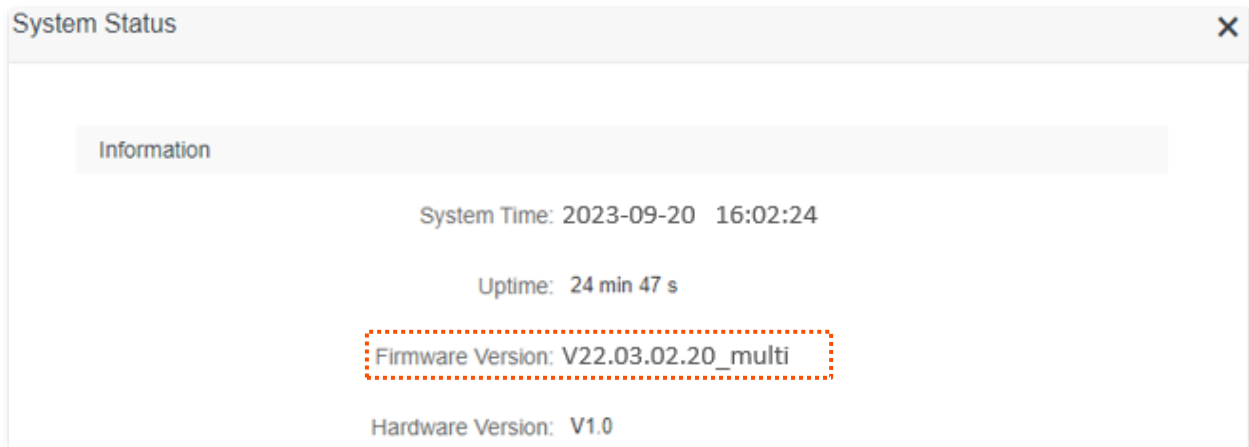


Step 7 Click **Upgrade**.



---End

Wait for a moment until the ongoing process finishes. [Log in to the web UI](#) of the router again. Navigate to **System Settings > System Status** and check whether the upgrade is successful based on the **Firmware Version**.



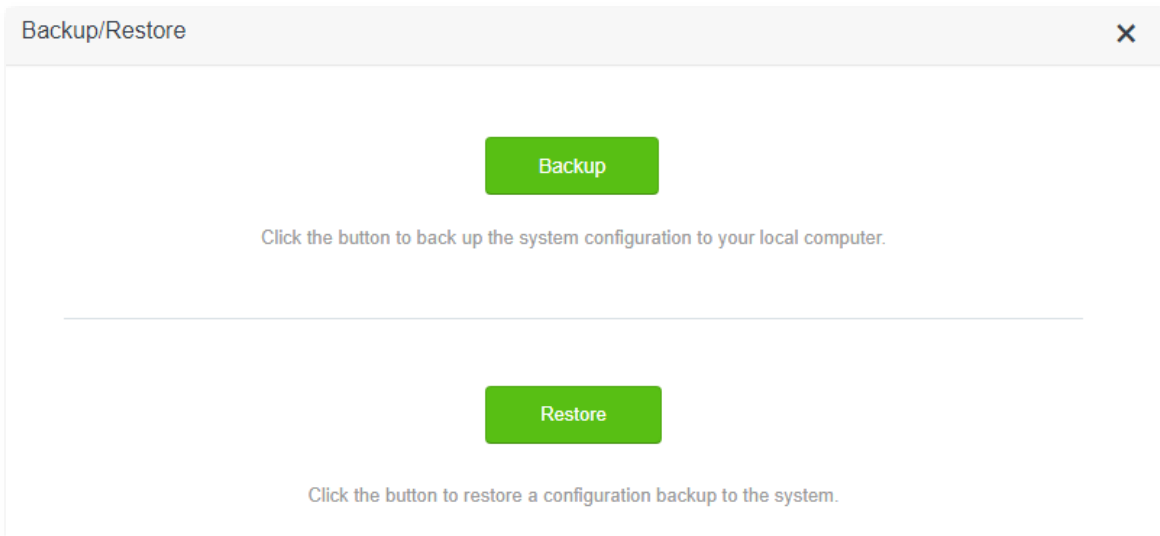
For better performance of the new firmware, you are recommended to reset the router to factory default settings and re-configure the router when the upgrading is completed.

9.8 Backup/Restore

In this module, you can back up the current configurations of the router to your computer. You are recommended to back up the configuration after the settings of the router are significantly changed, or the router works in a good condition.

After you restore the router to factory settings or upgrade it, you can use this function to restore the configurations that have been backed up.

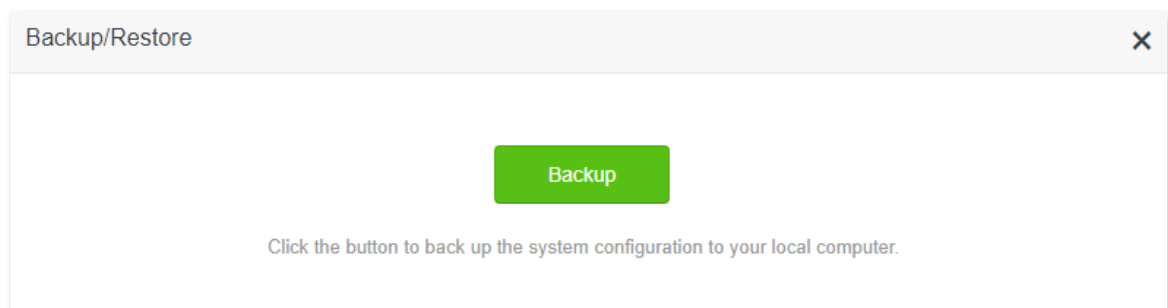
To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > Backup/Restore**.



9.8.1 Backup the configurations of the router

To back up the configurations of the router:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **System Settings > Backup/Restore**.
- Step 3** Click **Backup**.



- Step 4** Click **OK** in the pop-up window.

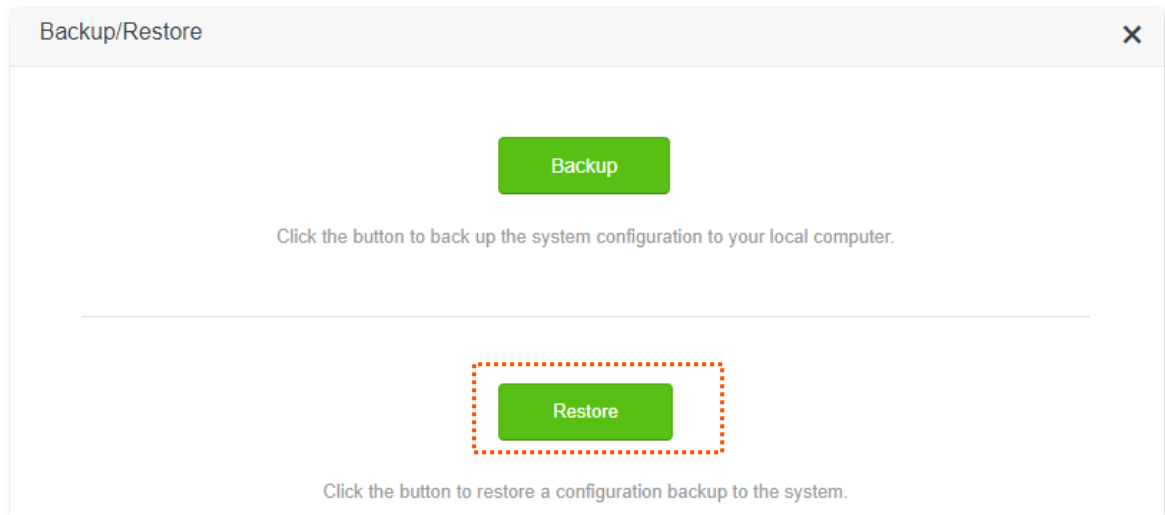
---End

A file named **RouterCfm.cfg** will be downloaded to your local host.

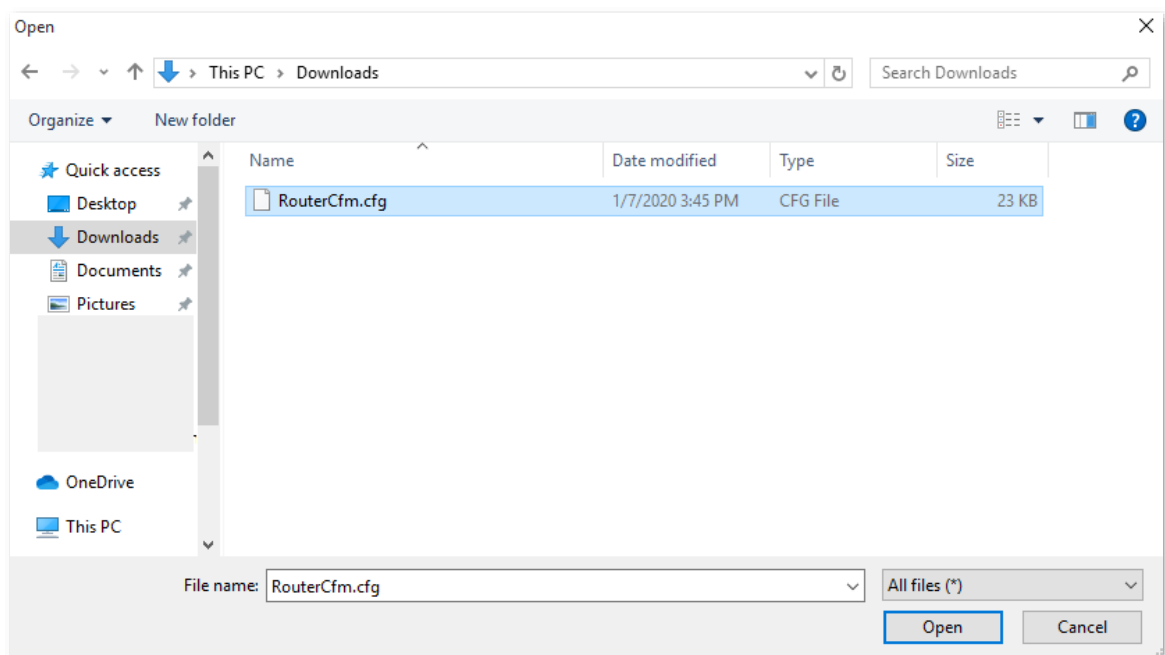
9.8.2 Restore previous configurations of the router

To restore the previous configurations of the router:

- Step 1** [Log in to the web UI](#) of the router.
- Step 2** Navigate to **System Settings > Backup/Restore**.
- Step 3** Click **Restore**.



- Step 4** Choose the configuration file to be restored (extension: cfg), and click **Open**.



---End

Wait for a moment until the ongoing process finishes, and previous settings are restored to the router.

9.9 Remote management

9.9.1 Overview

Generally, the web UI of the router can only be accessed on devices that are connected to the router by a LAN port or wireless connection. When you encounter a network fault, you can ask for remote technical assistance, which improves efficiency and reduces costs and efforts.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > Remote Management**.

By default, this function is disabled. When this function is enabled, the page is shown as below.

Remote Management

Remote Management: ☐


Remote IP Address:

Port:

Save

Parameter description

Parameter	Description
Remote Management	Used to enable or disable the remote management function of the router.
Remote IP Address	<p>Specifies the IP address of the host which can access the web UI of the router remotely.</p> <ul style="list-style-type: none"> • 0.0.0.0: It indicates that hosts with any IP address from the internet can access the web UI of the router. It is not recommended for security. • Other specified IP address: Only the host with the specified IP address can access the web UI of the router remotely. If the host is under a LAN, ensure that the IP address is the IP address of the gateway of the host (a public IP address).

Parameter	Description
Port	<p>Specifies the port number of the router which is opened for remote management. Change it as required.</p> <p> TIP</p> <ul style="list-style-type: none"> The port number from 1 to 1024 has been occupied by familiar services. It is strongly recommended to enter a port number from 1025 to 65535 to prevent conflict. Remote management can be achieved by visiting “http://the WAN IP address of the router:port number”. If the DDNS host function is enabled, the web UI can also be accessed through “http://the domain name of the router’s WAN port:port number”.

9.9.2 Enable Tenda technical support to access and manage the web UI

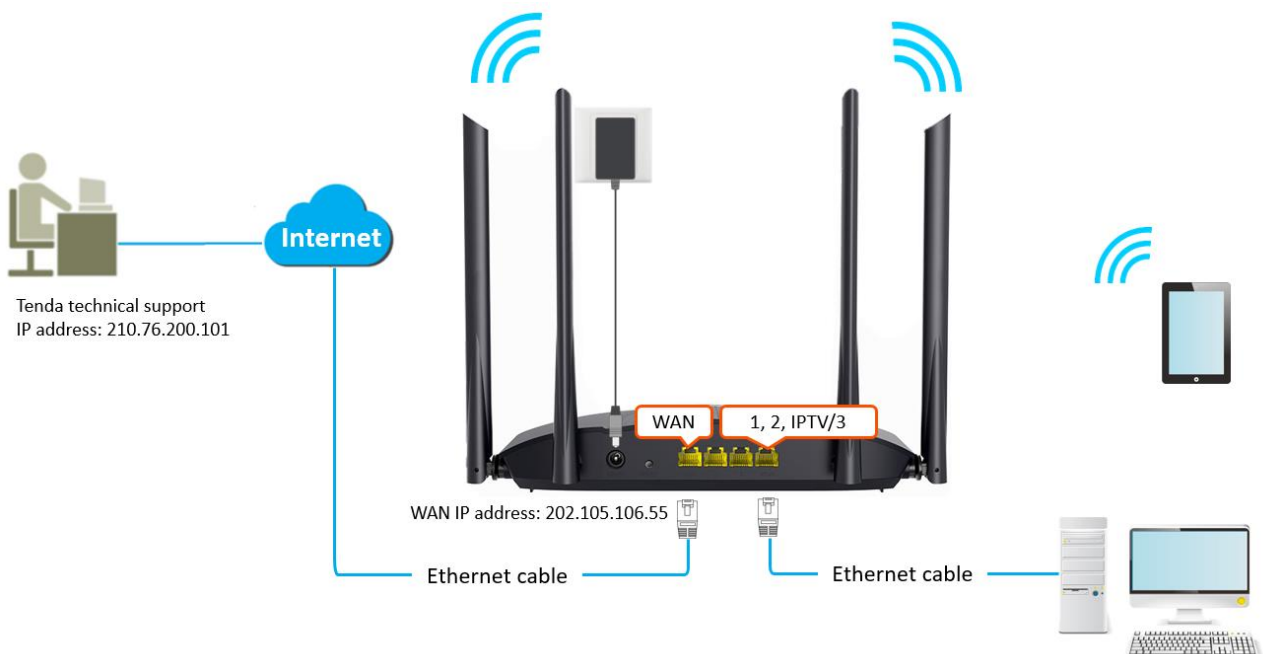
Scenario: You encounter a problem in configuring the router, and the router can access internet access.

Goal: Ask the Tenda technical support to help you configure the router remotely.

Solution: You can configure the remote management function to reach the goal.

Assume that:

- The IP address of Tenda technical support: 210.76.200.101
- The WAN port IP address of the router: 202.105.106.55



Configuring procedure:

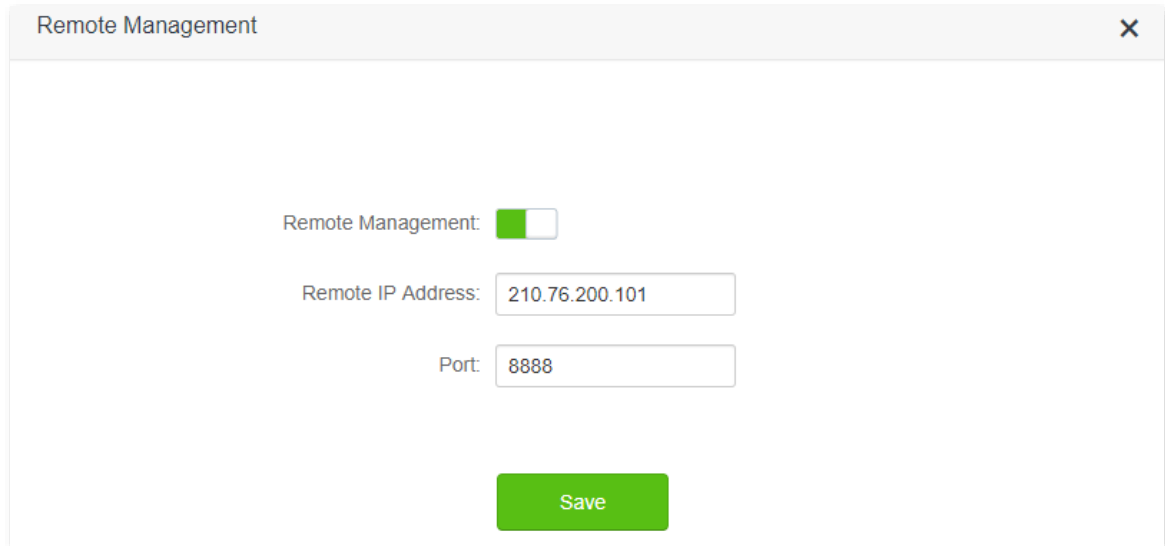
Step 1 [Log in to the web UI](#) of the router.

Step 2 Navigate to **System Settings > Remote Management**.

Step 3 Enable the **Remote Management**.

Step 4 Enter the IP address that is allowed to access the web UI remotely, which is **210.76.200.101** in this example.

Step 5 Click **Save**.

A screenshot of a web-based configuration window titled "Remote Management" with a close button (X) in the top right corner. The window contains three configuration fields: a toggle switch for "Remote Management" which is currently turned on (green), a text input field for "Remote IP Address" containing the value "210.76.200.101", and a text input field for "Port" containing the value "8888". At the bottom center of the window is a green "Save" button.

Remote Management

Remote Management: ☒

Remote IP Address: 210.76.200.101

Port: 8888

Save

---End

When the configurations are completed, the Tenda technical support can access and manage the web UI of the router by visiting "http://202.105.106.55:8888" on the computer.

9.10 System status

On this page, you can find the basic information of the router, WAN status, LAN status, WiFi status and IPv6 status.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > System Status**.

9.10.1 Basic information

In this part, you can view such basic information as system time, uptime and firmware version of the router.

Information
System Time: 2023-09-20 11:50:02
Uptime: 9 hour(s) 44 min 37 s
Firmware Version: V22.03.02.20_multi
Hardware Version: V1.0

Parameter description

Parameter	Description
System Time	Specifies the system time of the router.
Uptime	Specifies operating time of the router since it is powered on.
Firmware Version	Specifies the firmware version of the router.
Hardware Version	Specifies the hardware version of the router.

9.10.2 WAN status

In this part, you can view such information as connection type, connection status and connection duration of the WAN port.

WAN Status

Connection Type: Dynamic IP Address

Connection Status: Connected

Connection Duration: 4 s

IP Address: 192.168.101.28

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.101.1

Primary DNS: 192.168.108.110

Secondary DNS: 192.168.108.108

MAC Address:

Parameter description

Parameter	Description
Connection Type	Specifies the internet IPv4 connection type of the WAN port.
Connection Status	Specifies internet connection status of the WAN port.
Connection Duration	Specifies the duration since the router is connected to the internet.
IP address	Specifies the WAN IP address of the router.
Subnet Mask	Specifies the WAN subnet mask of the router.
Default Gateway	Specifies the gateway IP address of the router.
Primary DNS	Specify the IP address of primary and secondary DNS servers of the router.
Secondary DNS	
MAC Address	Specifies the WAN MAC address of the router.

9.10.3 LAN status

In this part, you can view such information as LAN IP address, subnet mask and MAC address of the LAN port.

LAN Status

IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

MAC Address:

Parameter description

Parameter	Description
IP Address	Specifies the LAN IP address of the router, and also the IP address for logging in to the web UI of the router.
Subnet Mask	Specifies the LAN subnet mask of the router.
MAC Address	Specifies the LAN MAC address of the router.

9.10.4 WiFi status

In this part, you can view such information as the status, visibility, hotspot name and encryption mode of 2.4 GHz and 5 GHz WiFi network.

WiFi Status

2.4 GHz Network: Visible

Hotspot Name: Tenda_81AD67

Encryption Mode: None

WiFi Channel: 6

WiFi Bandwidth: 20

MAC Address:

5 GHz Network: Visible

Hotspot Name: Tenda_81AD67_5G

Encryption Mode: None

WiFi Channel: 149

WiFi Bandwidth: 80

MAC Address:

Parameter description

Parameter	Description
2.4 GHz Network	Specify whether the corresponding WiFi network is enabled or disabled, and the visibility of the WiFi network.
5 GHz Network	
Hotspot Name	Specifies the WiFi name of the respective WiFi network.
Encryption Mode	Specifies the encryption mode of the respective WiFi network.
WiFi Channel	Specifies the channel that the respective WiFi network works in.
WiFi Bandwidth	Specifies the bandwidth of the respective WiFi network.
MAC Address	Specifies the MAC address of the respective WiFi network.

9.10.5 IPv6 status

This part is only displayed when the IPv6 function is enabled. You can view such information as connection type, IPv6 WAN address and IPv6 LAN address of IPv6 connection.

IPv6 Status
Connection Type: DHCPv6
IPv6 WAN Address: 240e:47d:30d9:549c:290:4cff:fe88:8a8a/64 fe80::290:4cff:fe88:8a8a/64
Default IPv6 Gateway: fe80::1234
Primary IPv6 DNS: 240e:1f:1::1
Secondary IPv6 DNS: 240e:1f:1::33
IPv6 LAN Address: fec0::290:4cff:fe88:8888/64 fe80::290:4cff:fe88:8888/64

Parameter description

Parameter	Description
Connection Type	Specifies the IPv6 connection type of the router.
IPv6 WAN Address	Specifies the WAN IPv6 address of the router. After the IPv6 function is configured, the WAN port of the router obtains a global unicast IPv6 address or a tunnel address, and a link local address.
Default IPv6 Gateway	Specifies the default IPv6 gateway address of IPv6 network.
Primary IPv6 DNS	Specify the primary and secondary DNS server address of IPv6 network.
Secondary IPv6 DNS	

Parameter	Description
IPv6 LAN Address	<p>Specifies the LAN IPv6 address of the router.</p> <p>After the IPv6 function is configured, the LAN port of the router obtains a global unicast IPv6 address or a tunnel address, and a link local address.</p>

9.11 System log

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > System Log**.

This function logs all key events that occur after the router is started. If you encounter a network fault, you can turn to system logs for fault rectification.

If necessary, you can also export the system logs to your local computer by clicking **Export**.

System Log ×			
Note: If the router is not connected to the internet, the default logging time is 2000-X-X XX:XX:XX.			
Number	Time	Type	Log Content
1	2023-09-20 13:31:08	notice	wlan0: AP-CSA-FINISHED freq=2442 Channel=7 Op...
2	2023-09-20 13:31:08	notice	wlan0: CTRL-EVENT-CHANNEL-SWITCH freq=2442...
3	2023-09-20 13:31:08	info	wlan0: IEEE 802.11 driver had channel switch: freq=...
4	2023-09-20 13:31:08	notice	wlan0.1: AP-CSA-FINISHED freq=2442 Channel=7 ...
5	2023-09-20 13:31:08	notice	wlan0.1: CTRL-EVENT-CHANNEL-SWITCH freq=24...
6	2023-09-20 13:31:08	info	wlan0.1: IEEE 802.11 driver had channel switch: freq...
7	2023-09-20 13:31:07	notice	wlan0.1: CTRL-EVENT-STARTED-CHANNEL-SWIT...
8	2023-09-20 13:31:07	info	wlan0.1: IEEE 802.11 driver starting channel switch: f...
9	2023-09-20 13:31:07	notice	wlan0: CTRL-EVENT-STARTED-CHANNEL-SWITC...
10	2023-09-20 13:31:07	info	wlan0: IEEE 802.11 driver starting channel switch: fre...
<div> Export << < > >> </div>			




TIP Rebooting the router will clear all previous system logs.

9.12 Automatic maintenance

Automatic maintenance enables you to make the router restart regularly. It helps improve the stability and service life of the router.

To access the configuration page, [log in to the web UI](#) of the router, and navigate to **System Settings > Automatic Maintenance**.

Parameter description


Parameter	Description
System Reboot Schedule	Used to enable or disable the automatic reboot function.
Reboot At	Specifies the time when the router reboots automatically every day.
Delay	<p>Used to enable or disable the delay function.</p> <ul style="list-style-type: none"> • Ticked: The function is enabled. When the time for rebooting approaches, if there is any user connected to the router and the traffic over the router's WAN port exceeds 3 KB/s within 30 minutes, the router will delay rebooting. If there is any user connected to the router but the total traffic of users over the WAN port does not exceed 3 KB/s within 30 minutes, or there is no user connected to the router and the traffic over the router's WAN port is slower than 3 KB/s within 3 minutes, the router will reboot automatically. • Unticked: The function is disabled. The router enters the sleeping mode during the sleeping time without delay. <p> TIP</p> <p>When the system reboot schedule function is enabled, the router detects the traffic over the WAN port continuously within 2 hours after the specified reboot time and reboot when the traffic requirement for rebooting is met.</p>

Appendix

A.1 Configuring the computer to obtain an IPv4 address automatically

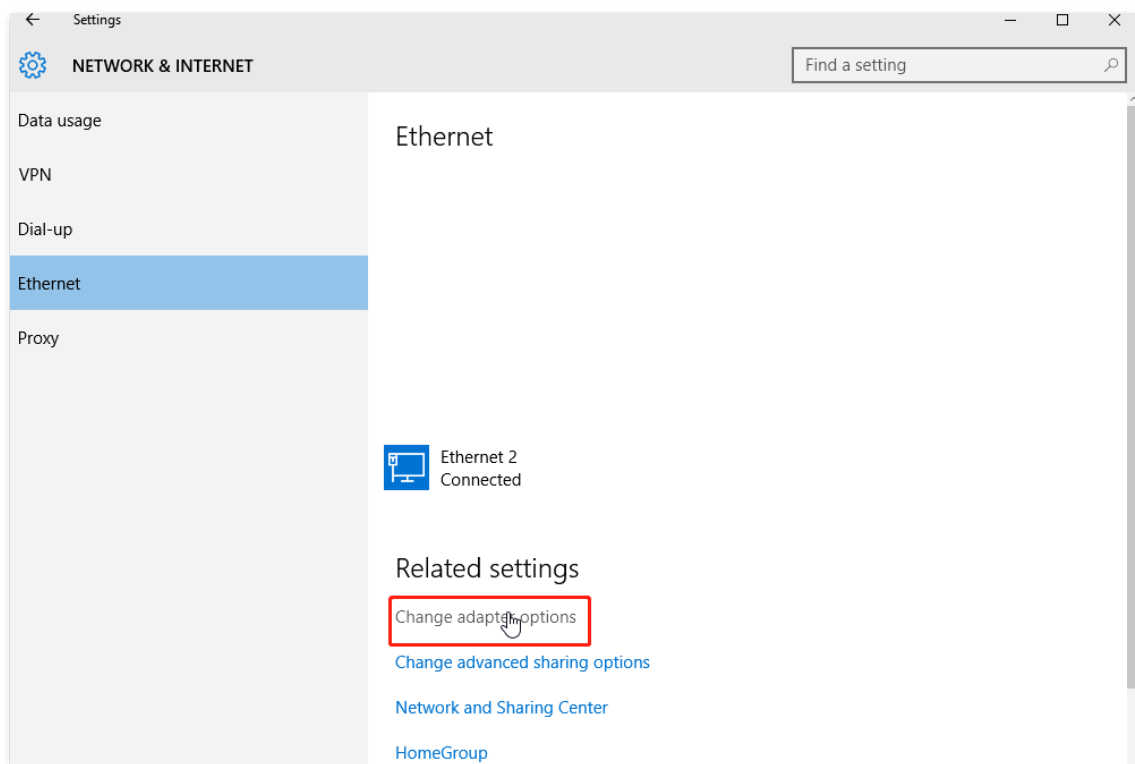
Perform the configuring procedures corresponding to [Windows 10](#), [Windows 8](#) and [Windows 7](#) as required. A computer installed with a wired network adapter is used as an example to describe the procedures. The procedures for configuring computers installed with a WiFi network adapter are similar.

A.1.1 Windows 10

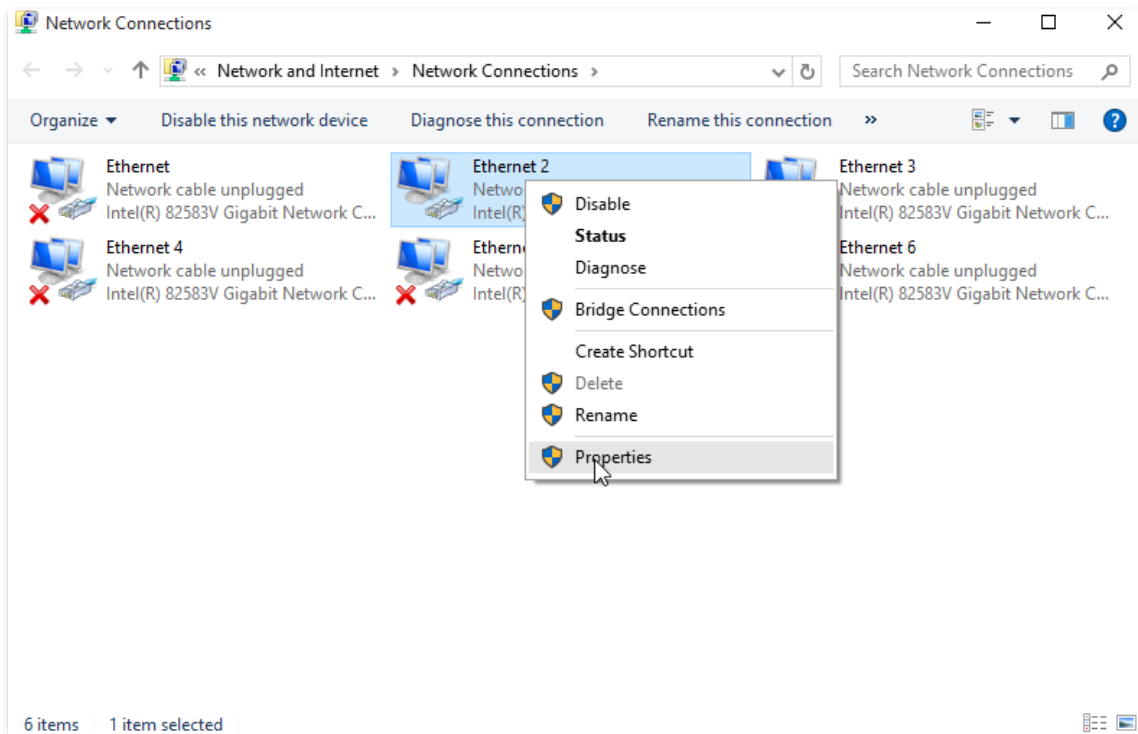
Step 1 Click  in the bottom right corner of the desktop and choose **Network settings**.



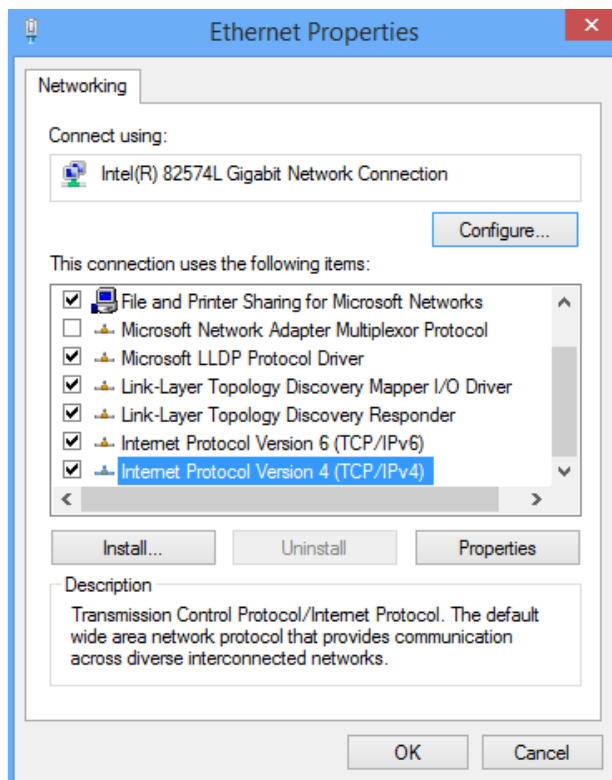
Step 2 Click **Change adapter options**.



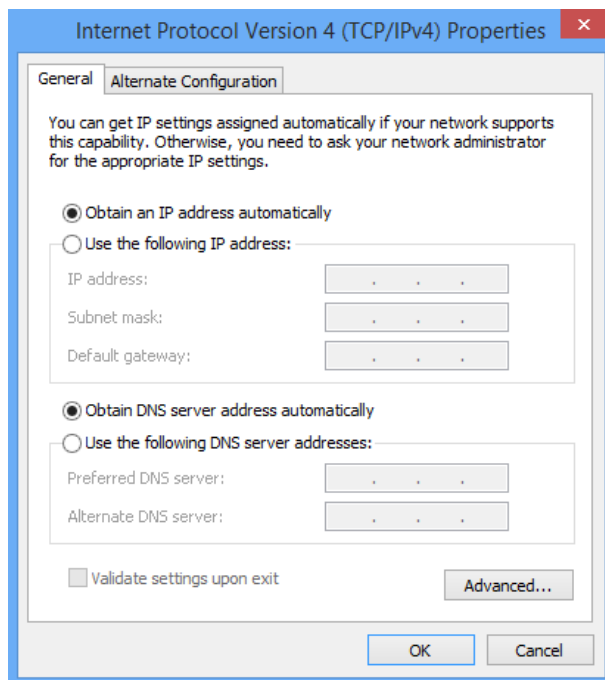
Step 3 Right click on the connection which is being connected, and then click **Properties**.



Step 4 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.




Step 5 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

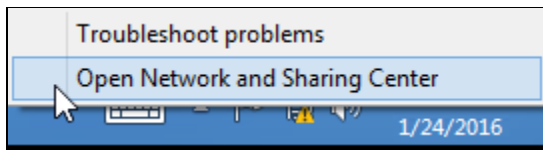


Step 6 Click **Close** in the **Ethernet Properties** window.

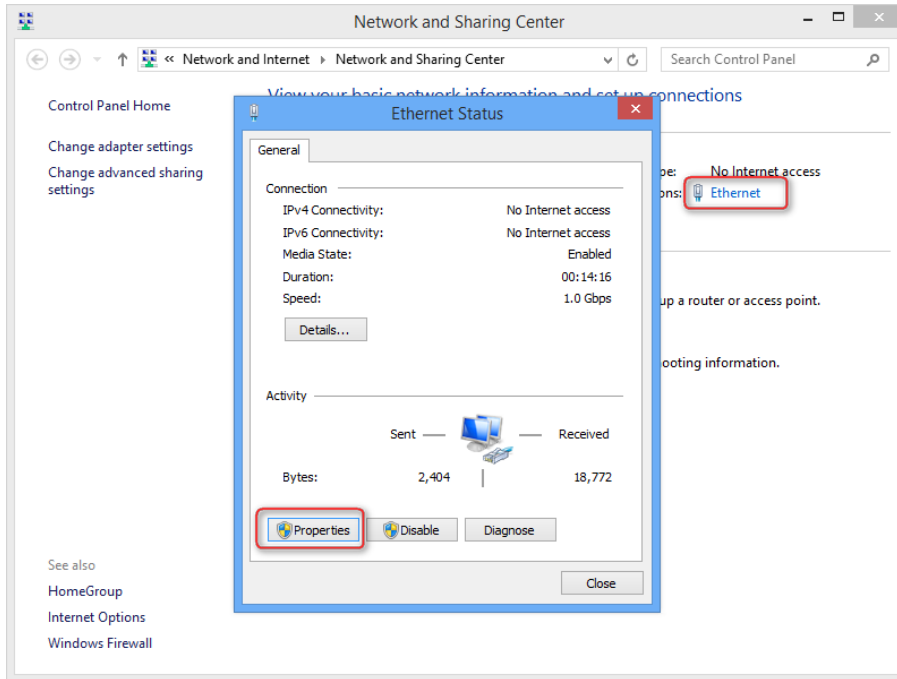
---End

A.1.2 Windows 8

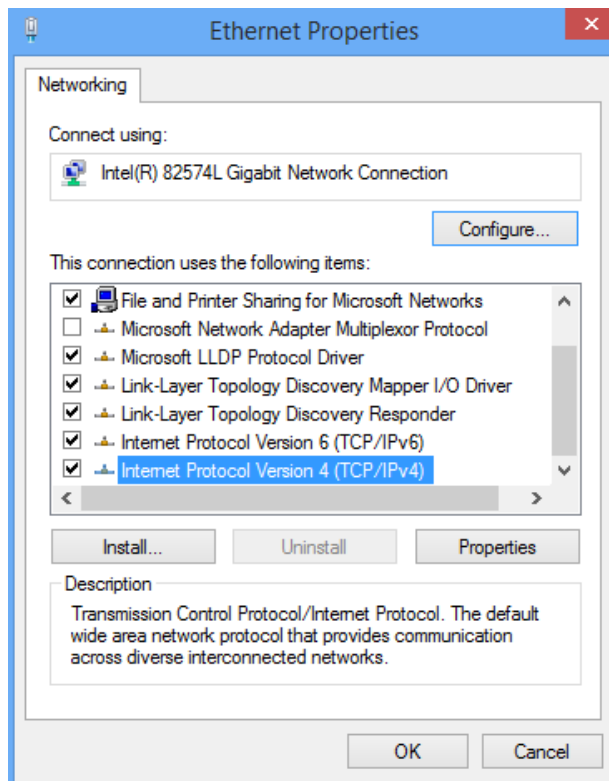
Step 1 Right-click  in the bottom right corner of the desktop and choose **Open Network and Sharing Center**.



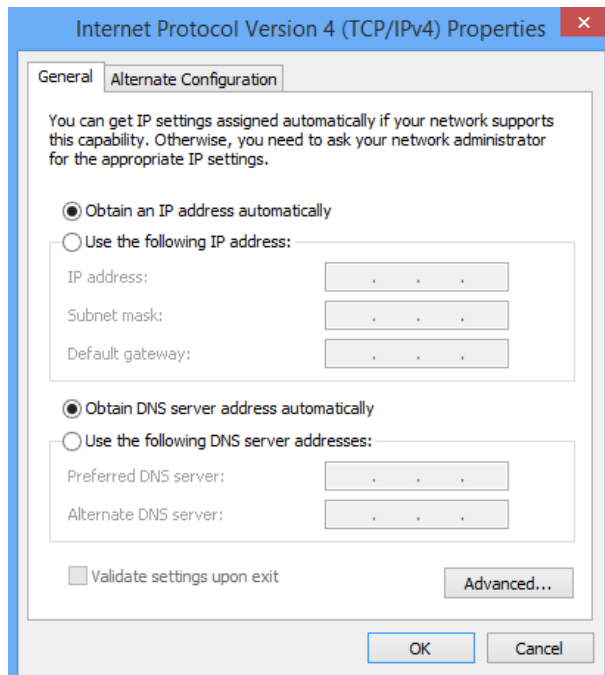
Step 2 Click **Ethernet** and then **Properties**.



Step 3 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.




Step 4 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

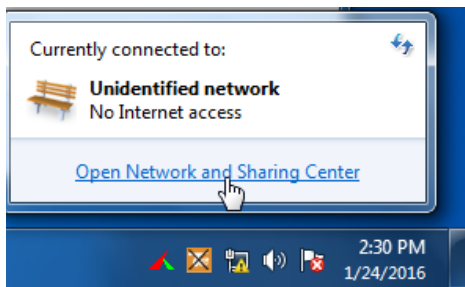


Step 5 Click **OK** in the **Ethernet Properties** window.

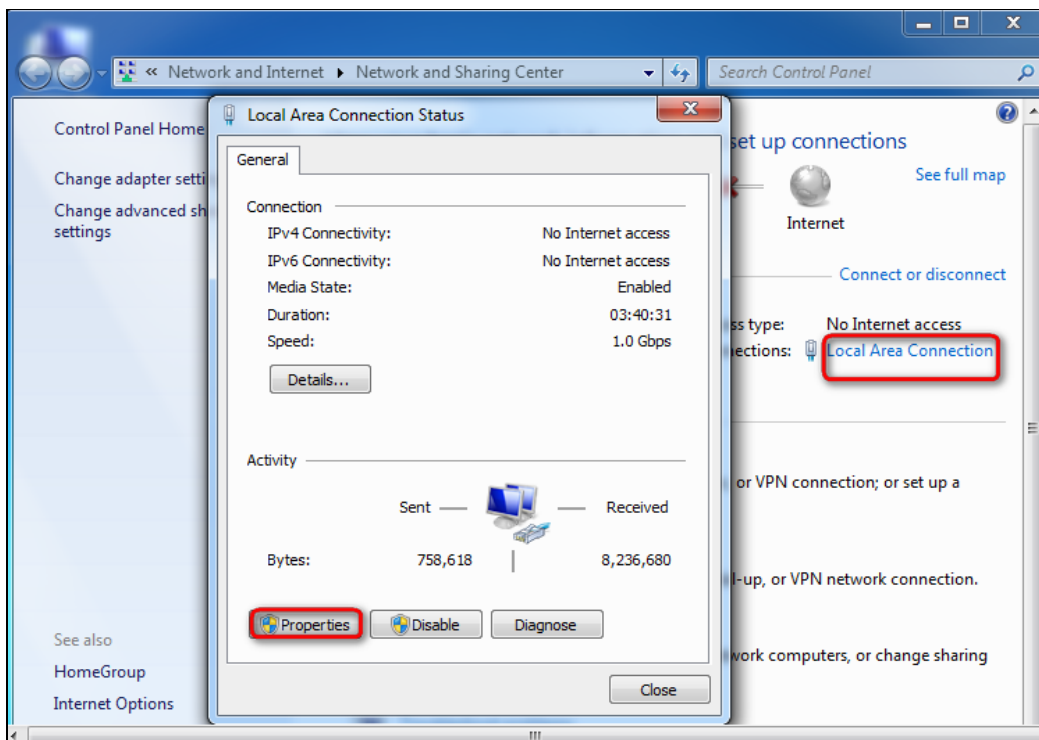
---End

A.1.3 Windows 7

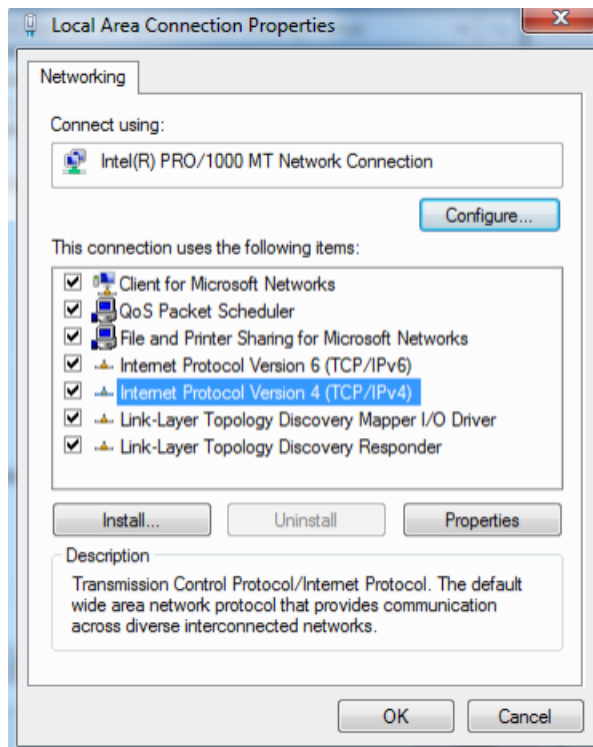
Step 1 Click  in the bottom right corner of the desktop and choose **Open Network and Sharing Center**.



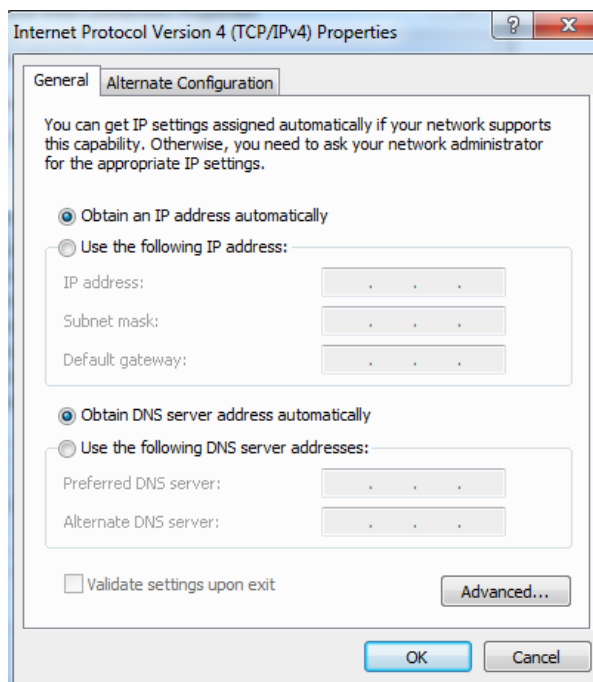
Step 2 Click **Local Area Connection** and then **Properties**.



Step 3 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



Step 4 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.



Step 5 Click **OK** in the **Local Area Connection Properties** window.

---End

A.2 Default parameters

Parameter		Default value
Login	IP address	192.168.0.1
	Password	None
LAN Parameters	IP Address	192.168.0.1
	Subnet Mask	255.255.255.0
DHCP Server	DHCP Server	Enabled
	Start IP Address	192.168.0.100
	End IP Address	192.168.0.200
	Preferred DNS Server	192.168.0.1
Wireless Settings	WiFi Name	See the label on the bottom of the router
	WiFi Password	
	Beamforming+	Enabled
IPv6		Disabled

A.3 Acronyms and Abbreviations

Acronym or Abbreviation	Full Spelling
ADSL	Asymmetric Digital Subscriber Line
AES	Advanced Encryption Standard
AP	Access Point
DDNS	Dynamic Domain Name System
DHCP	Dynamic Host Configuration Protocol
DHCPv6	Dynamic Host Configuration Protocol for IPv6
DMZ	Demilitarized Zone
DNS	Domain Name System
FTP	File Transfer Protocol
GMT	Greenwich Mean Time
ICMP	Internet Control Message Protocol
IEEE	Institute of Electrical and Electronics Engineers
IP	Internet Protocol
IPTV	Internet Protocol Television
IPv4	Internet Protocol Version 4
IPv6	Internet Protocol Version 6
ISP	Internet Service Provider
L2TP	Layer 2 Tunneling Protocol
LAN	Local Area Network
LED	Light Emitting Diode
MAC	Medium Access Control
MIMO	Multiple Input Multiple Output
MTU	Maximum Transmission Unit
NAT	Network Address Translation
PD	Prefix Delegation
PIN	Personal Identification Number
POP	Post Office Protocol
PPPoE	Point-to-Point Protocol over Ethernet

Acronym or Abbreviation	Full Spelling
PPTP	Point to Point Tunneling Protocol
RA	Router Advertisement
RDNSS	Recursive Domain Name System Server
RU	Resource Unit
SAE	Simultaneous Authentication of Equals
SLAAC	Stateless Address Autoconfiguration
SSID	Service Set Identifier
STB	Set-Top Box
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
UI	User Interface
UPnP	Universal Plug and Play
USB	Universal Serial Bus
VLAN	Virtual Local Area Network
VPN	Virtual Private Network
WAN	Wide Area Network
WISP	Wireless Internet Service Provider
WPA	Wi-Fi Protected Access
WPA-PSK	WPA-Preshared Key
WPA3-SAE	WPA3-Simultaneous Authentication of Equals
WPS	Wi-Fi Protected Setup